United States Department of the Interior
Bureau of Land Management

Eastern States
Southeastern States Field Office
411 Briarwood Drive, Suite 404
Jackson, Mississippi 39206
http://www.es.blm.gov

Determination of NEPA Adequacy (DNA)
EA-020-2015-08

Project Name: Homochitto 25-3 #3 APD

Date: January 20, 2015

Worksheet
Documentation of Land Use Plan Conformance and NEPA Adequacy (DNA)
U.S. Department of the Interior Bureau of Land Management

Note: This Worksheet is consistent with the policies stated in the Instruction Memorandum entitled, *Documentation of Land Use Plan Conformance and National Environmental Policy Act (NEPA) Adequacy*. Transmitting this Worksheet and the Guidelines for using the DNA Worksheet are located in Appendix 8 - 161 H-1790-1 of The *National Environmental Policy Act Handbook* (http://www.blm.gov/wy/st/en/info/NEPA.html).

A. Proposed Action

The proposed action is the permitting of one Application for Permit to Drill (APD): Homochitto 25-3 #3 submitted by Stroud Petroleum, Inc. on the United States Department of Agriculture (USDA) Forest Service's Homochitto National Forest. The Proposed APD is located in T.6N, R.2E, Section 25 of Franklin County, Mississippi.

Connected actions will include timber removal, well pad construction, lease road construction, and pipeline installation as follows:

> The proposed well pad is estimated to be approximately 2.01 acres for 300 feet by 300 feet square pad. The proposed access road right-of-way (ROW) is approximately 30 feet wide by 300 feet long and 0.21 acres of disturbance. The total proposed disturbance area associated with the well pad site and access road is estimated to be approximately 2.28 acres. The pipeline ROW will be co-located in the access road ROW.

The APD proposed by Stroud Petroleum, Inc. is subject to USDA Forest Service conditions, stipulations, and/or terms. USDA Forest Service Surface Use Conditions of Approval (SUCOA) are attached to the BLM's DNA and are incorporated into the APD. USDA Forest Service's Decision Notice and Finding of No Significant Impact (FONSI) were signed on January 15, 2015. USDA Forest Service's Decision Memo was received by the Southeastern States Field Office (SSFO) on January 16, 2015.

B. Land Use Plan (LUP) Conformance

LUP Name:	USDA Forest Service, Final Environmental Impact Statement for the Revised Land and Resource Management Plan, National Forests in Mississippi
Date Approved:	July 3, 2014

Oil and gas surface operations and leasing analysis for the National Forests in Mississippi was prepared by the USDA Forest Service in the Final Environmental Impact Statement for the Revised Land and Resource Management Plan signed July 2014.

All National Forests in Mississippi lands, although geographically separated from each other, cover approximately 1.1 million acres and are managed under one LUP adopted in July 2014, which is listed above.

C. Identify applicable NEPA documents and other related documents that cover the proposed action. (List by name and date all applicable documents that cover the proposed action such as Environmental Assessments (EA), Best Management Practices (BMP), Memorandum of Understanding (MOU), and etc.)

(1).	EA Name:	National Forests in Mississippi, Lands Available for Oil and Gas Leasing Environmental Assessment
	Date Approved:	August 6, 2010
(2).	Report:	Biological Evaluation (BE) prepared for Stroud Petroleum, Inc., Homochitto 25-5 #2 (FWS concurred in usage of this report for the approval of Homochitto 25-3 #3)
	Date:	March 6, 2014
(3).	Memo:	Mississippi Department of Archives and History letter of concurrence for Phase 1 Cultural Resource Survey of proposed Stroud Petroleum's Homochitto Well 25-3 #3, MDAH Project Log #12-041-14, Report #14-0488, Franklin County
	Date:	April 16, 2014
(4).	MOU Name:	Memorandum of Understanding between United States Department of the Interior, Bureau of Land Management and United States Department of Agriculture, Forest Service Concerning Oil and Gas Leasing and Operations. Forest Service Agreement No. 06-SU-11132428-052
	Date Approved:	April 14, 2006
(5).	BLM BMPs:	Surface Operating Standards and Guidelines for Oil and Gas Exploration and Development, Gold Book
	Date:	2006

D. NEPA Adequacy Criteria

1. Is the current proposed action substantially the same action (or is a part of that action) as previously analyzed? Is the current proposed action located at a site specifically analyzed in an existing document?

The proposed action was analyzed by the USDA Forest Service. An EA was approved by the USDA Forest Service with BLM as a cooperating agency for mineral leasing and development on August 6, 2010. USDA Forest Service manages and approves surface disturbance activities on lands under their management.

2. Is the range of alternatives analyzed in the existing NEPA document(s) appropriate with respect to the current proposed action, given current environmental concerns, interests, and resource values?

The range of alternatives analyzed is appropriate and still relevant in respect to the current proposed action. A wide range of environmental concerns and resource values surrounding the proposed APD was extensively addressed in the USDA Forest Service's EA cited above. Also, the USDA Forest Service of Mississippi has an updated and recent LUP dated July 2014.

3. Is the existing analysis valid in light of any new information or circumstances?

The existing analysis contained in the USDA Forest Service's EA dated August 6, 2010 is current. The USDA Forest Service of Mississippi's LUP is current and address oil and gas leasing and development. The LUP is dated July 2014. There is no new information or circumstances that have arisen to render the previous analyses inadequate.

4. Do the methodology and analytical approach used in the existing NEPA document(s) continue to be appropriate for the current proposed action?

The methodology and analytical approach used is up-to-date and appropriate to use for the proposed APD submitted by Stroud Petroleum, Inc.

5. Are the direct and indirect impacts of the current proposed action substantially unchanged from those identified in the existing NEPA document(s)? Does the existing NEPA document analyze site-specific impacts related to the current proposed action?

The direct and indirect impacts of the proposed action have not changed from those analyzed in the NEPA documents cited above. The previous NEPA analysis addresses the same site-specific impacts for the proposed action under USDA Forest Service lands.

6. Are the cumulative impacts that would result from implementation of the current proposed action substantially unchanged from those analyzed in the existing NEPA document(s)?

No new cumulative impacts would result beyond those previously addressed in the NEPA documents cited above.

7. Are the public involvement and interagency review associated with existing NEPA document(s) adequate for the current proposed action?

The public involvement and review process for the NEPA documents cited above is adequate for the proposed action. Also, the Homochitto National Forest provided the public a Legal Notice for public comment dated October 19, 2014.

E. Interdisciplinary Analysis: Identify those team members conducting or participating in the NEPA analysis and preparation of this worksheet.

Prepared by: Brian Kennedy Date: 1/23/15
Brian Kennedy
Physical Scientist

Reviewed by: Duane Winters Date: 1/27/15
Duane Winters
Resource Supervisor

Reviewed by: Elizabeth Ivy Date: 1/23/15
Elizabeth Ivy
Minerals Supervisor

Conclusion

Based on the review documented above along with attached USDA Forest Service's SUCOAs for the USA Homochitto 25-3 #3 APD, I conclude that this proposal conforms to the USDA Forest Service's applicable LUP and EA. The National Environmental Policy Act (NEPA) documentation fully covers the proposed action and constitutes the Bureau of Land Management (BLM) compliance with the requirements of NEPA.

Note: The signed Conclusion on this Worksheet is part of an interim step in the BLM's internal decision process and does not constitute an appealable decision. However, the lease, permit, or other authorization based on this DNA is subject to protest or appeal under 43 CFR Part 4 and the program-specific regulations.

Approved by: Bruce Dawson Date: 2-2-2015
Bruce Dawson
Jackson Field Office Manager

Conditions of Approval
for the Surface Use Plan of Operations
Stroud Petroleum Homochitto 25-3 No. 3
Federal Lease # MSES MS-BLM-A-047559
Section 25, T6N-R2E, Franklin Co.

USDA Forest Service
Homochitto National Forest
Meadville, MS

The surface use plan of operations for this proposed action is satisfactory if the following conditions of approval are added:

GENERAL

1. The Forest Service will be notified a minimum of 2 days prior to beginning any phase of this activity.
2. A pre-work conference will be held prior to commencing any phase of this activity. The pre-work conference shall include an Authorized Forest Service Representative, Operator, site construction contractor, drilling contractor, and restoration contractor. If any representative is absent, no conference will be held until such time as all representatives are present.
3. No construction will be allowed in unusually wet weather. Wet conditions vary according to site. To minimize soil erosion the Forest Service will decide what are acceptable weather and soil conditions.
4. The Operator shall take measures to prevent uncontrolled fires and suppress uncontrolled fires resulting from operations.
5. To prevent the introduction and spread of non-native species onto National Forest land, ensure that all equipment moved onto National Forest land is free of soil, seeds, vegetative matter or other debris that could contain or hold non-native species.
6. Survey, land corners. The Operator shall protect, in place, all public land survey monuments, private property corners, and Forest boundary markers. In the event that any such land markers or monuments are destroyed in the exercise of the privileges authorized by this permit, depending on the type of monument destroyed, the Operator shall see that they are reestablished or referenced in accordance with (1) the procedures outlined in the Manual of Instructions for the Survey of the Public Land of the United States, (2) the specifications of the county surveyor, or (3) the specifications of the Forest Service. Further, the Operator shall cause such official survey records as are affected to be amended as provided by law. Nothing in this clause shall relieve the Operator's liability for the willful destruction or modification of any Government survey marker as provided at 18 U.S.C. 1858.
7. Liability. The Operator shall be liable for all injury, loss, or damage, indirectly or directly resulting from or caused by the Operator's use and occupancy of the area covered by this authorization, regardless of whether the Operator is negligent, provided that the maximum

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liability without fault shall not exceed $1 million for any one occurrence. Payment of damages for occurrence where there is liability without fault (strict liability) does not limit the Operator's liability for damages in excess of $1 million where actual negligence is shown or imputed. Liability for injury, loss, or damage in excess of the specified maximum, shall be determined by the laws governing ordinary negligence. Proof of Insurance certificate stating such shall be provided to Authorized Forest Officer.

8. Indemnification. The Operator shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of national forest lands under this permit. Insurance certificate indemnifying the United States shall be provided.
9. Risks and hazards. Rising waters, high winds, falling limbs or trees, and other hazards are natural phenomena in the Forest that present risks which the Operator assumes. The Operator has responsibility of inspecting the site, lot, right-of-way, an immediate adjoining area for dangerous trees, hanging limbs, and other evidence of hazardous conditions, and after securing permission from the Forest Service, of removing such hazards.
10. Construction safety. The Operator shall carry on all operations in a skillful manner, having due regard for the safety of employees; and shall safeguard with fences, barriers, fills, covers, or other effective devices, pits, cuts, and other excavations which otherwise would unduly imperil the life, safety, or property of other persons.
11. Corporate status notification. Operator shall provide sufficient information so that the authorized officer will know the true identity of the corporation. A certified copy of either the minutes of the board, or the pertinent excerpts from the corporate resolutions authorizing the corporate official designated to handle its affairs with the Forest Service will be furnished the authorized officer.
12. Nonexclusive use. This permit/agreement is not exclusive; that is, the Forest Service reserves the right to use or permit others to use any part of the area for any purpose, provided such use does not interfere with the rights and privileges hereby authorized.
13. Implied permission. Nothing in this permit shall be construed to imply permission to build or maintain any structure not specifically named on the face of this permit, or approved by the authorized officer in the form of a new permit or permit amendment.
14. Area access. The Operator agrees to permit the free and unrestricted access to and upon the premises, by authorized persons, at all times for all lawful and proper purposes not inconsistent with the intent of the permit or with the reasonable exercise and enjoyment by the Operator of the privileges thereof.

ACCESS ROADS & SITES

1. Reconstructed access roads should be ditched, reshaped and crowned. Suitable surfacing should be required for operations that will extend through several weather events.
2. Notify the Forest Officer in advance of all work, which will result in surface disturbance for a pre-work inspection.
3. All merchantable timber should be cut and removed from the road and site location. All resulting tops and slash should be either burned or buried on site or lopped and scattered to lie within 2 feet of the ground as directed by the Forest Service.

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3.1 All non-merchantable vegetation will be cut and treated as described above for tops and slash.

3.2 Brush, slash, and other debris may be burned if authorized by the Forest Officer, or otherwise will be disposed of as directed. Burning will follow all applicable Forest Service, Mississippi Forestry Commission, and State of Mississippi air quality regulations and procedures.

3.3 No standing vegetation will be pushed by bulldozer and no site construction with bulldozer will commence until after all the above is accomplished and approved by the Forest Service.

3.4 Stumps may be pushed to just beyond clearing limits and shall lie singly--not piled or bunched, unless arranged to be utilized as run-off and soil stabilization material.

4. Available topsoil will be stored at designated places on location after slash removal and before dirt work begins.
5. If drilling results in production, production sites will be surfaced with adequate gravel or crushed aggregate.
6. Access road for pre-production use shall have drainage control measures such as rolling dips and lead-off ditches, and shall be surfaced as necessary with pit run gravel, graded aggregate or boards to prevent severe rutting, gully or rill erosion, and other excessive resource damage. If applicable and prior to the well entering production, the access road shall be improved for long term use with full surfacing of the appropriate type for the soil and gradient conditions. Plans and specifications, and the resultant construction of such longer term improvements shall be subject to Forest Service review and approval.
7 Access roads and pads will be adequately maintained during the life of the authorization. This maintenance shall include blading and shaping to smooth surfaces and pull surfacing material back onto roadway, resurfacing, spot graveling, ditch work, and culvert repair or additional work as specified. This work shall be conducted as needed or as directed by the Forest Officer.
8. The road may be left and maintained for the operation of a producing well or for the use of the Forest Service at the Authorized Forest Officer's discretion.
9. In the event of a dry hole, roads will be restored and/or stabilized to Forest Service standards.

LOCATION OF EXISTING AND/OR PROPOSED FACILITIES

1. On-site equipment will be kept well maintained, neatly arranged, and painted where appropriate. It is the intent that a neat, orderly appearance is presented. Facilities should be painted to blend into the surrounding environment; the Authorized Forest Officer will determine specific painting requirements.
2. Pesticides, including herbicides, may not be used to control undesirable woody and herbaceous vegetation, aquatic plants, insects, rodents, or trash fish without prior written approval of the forest officer. A request for approval of planned uses and schedule of

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applications of pesticides will be submitted annually by the Operator. Exceptions to this schedule may be allowed only when unexpected outbreaks of pest require control measures which were not anticipated at the time the annual report was submitted / required. At that time an emergency request and approval may be made. Only those materials registered by the U.S. Environmental Protection Agency for the specific purpose planned will be considered for use on National Forest land. Label instructions will be strictly followed in the application of pesticides and disposal of excess materials and containers.

3. Any usable quantities of chemicals temporarily stored on site will have prominent labeling and stored off the ground and out of direct sunlight.
4. Measures should be taken to prevent soil erosion.
5. Site access roads will be gated only upon the approval of the Forest Officer. The Forest Officer must also approve gate specifications. Gates shall be signed and comply with the Manual of Uniform Traffic Control Devices (MUTCD).
6. Signs restricting public access will be placed only with the approval of the Authorized Forest Officer. All signs will be removed by the Operator at the conclusion of operations.
7. A "Spill Prevention and Countermeasure Plan" shall be filed with the Authorized Forest Officer and all participating personnel briefed on what to do in the event of a spill and emergency.
8. The "Spill Prevention and Countermeasure Plan" submitted to the Authorized Forest Officer, will be followed. Upon a spill occurrence, of any size, the Operator implement the "Plan", taking immediate containment and cleanup action and notifying the Forest Officer at the earliest opportunity.
9. All nonessential equipment, phone lines, and chemicals for the production facility will be removed from National Forest land within 30 days of being excess. Fresh water well will be properly plugged, if not being maintained for future use. If not plugged, it MUST be adequately protected from contamination and fire.
10. Petroleum product and water storage tanks will be placed on level ground and surrounded by a dike capable of holding 1 1/2 times the volume of the largest tank OR the total volume of fluids produced into the said battery during any twenty-four (24) hour period, whichever is the greatest. The dike (or firewall) or retaining wall shall be constructed of impermeable material. If there is more than 150% of the volume of the largest vessel in the tank battery produced into the battery in a twenty-four (24) hour period, the Operator may, in lieu of extending the size of the firewall to accommodate the excess of the 150% of the volume of the largest vessel in the tank battery, install a high level shut down device or system inside the firewall that would, in the event of a spill, shut down all production coming to the tank battery at a level that would not allow the fluid level to reach within six inches of the top of the firewall.
11. Tanks will be placed on a stable, solid foundation six inches or more in height to insure that they remain clear of standing water. The foundation will be designed so that it will not subside and cause the tanks to sink or lean. Trenching within diked areas will not be allowed. Sumps with pumps maybe allowed.
12. Dikes will not be dug from a level surface. Instead, a level surface will be used as a base with the dike built upon that. The dike core will be of clay or other similarly impermeable material. The top of the dike will be level and maintained so that it does not become beaten down at any point. The top of the dike should be a minimum of 18 inches in width and side slopes of no greater than 3:1. It is recommended that the sides and top of all dikes be covered with a thick plastic sheet and washed gravel on top of the plastic. This will help

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prevent erosion and sloughing of dike material. Also, this will help solve the problem of vegetation growth and fire hazards; spraying or mowing should not be necessary.

13. Dikes must be constructed before any liquid is stored in the tanks.
14. Any liquids collected within dikes, including liquids that may be rainwater, will not be drained off the site (outside dike area) unless approved by the Authorized Forest Officer. Drains will not be installed.
15. All lines used to drain oil or salt water will have well-maintained and sealed valves to prevent leaks and vandalism. Load-out valves shall be located within dike area. The use of drip catch pans is encouraged.
16. All facilities will be designed and located to permit maintenance of fire breaks around all above ground equipment. A 5-10' strip of gravel or riprap rock (or crushed stone) will be placed around above ground facilities to function as a fire break.
17. Spill prevention or automatic shutdown equipment shall be in place and maintained.

METHODS FOR HANDLING WASTE DISPOSAL

1. Clean-up of area must be complete. All equipment, junk, trash, garbage, etc., shall be removed from National Forest land as work progresses. No burning of trash is allowed.
2. No waste or by-products shall be discharged containing any substances in concentrations, which may result in significant harm to fish and wildlife, or to human water supplies. Storage facilities for materials capable of causing water pollution, if accidentally discharged, shall be located so as to prevent any spillage into waters, or to channels leading into water, that would result in significant harm to fish and wildlife or to human water supplies.
3. The disposal of fluids and cuttings will be accomplished within 30 days of completion of the drilling operations, weather permitting. Materials may be pumped back down hole only after proper approval from the Mississippi Oil and Gas Board or Bureau of Land Management as applicable, has been presented to the Forest Service.

    3.1. Pit sludge and cuttings may be buried on site only if an independent laboratory has tested the material and provided the Forest Service with proof that all Federal and State waste disposal requirements are met.

    3.2. If burial is allowed, only the existing site may be utilized. Burial must be to sufficient depth to prevent migration of material to the surface. If burial is not allowed, all drilling sludge and cuttings will be removed and appropriately disposed of.

    3.3. Pits will be backfilled when dry; and site smoothed and contoured as near as practicable to the original topography, with stockpiled topsoil spread evenly.

    3.4. No burying of drilling fluid will occur unless a Forest Service Representative is notified.

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4. Upon completion of pit content testing, send the District Ranger copies of approval required by Mississippi Oil and Gas Board. A copy of any or all permits required by the Mississippi Oil and Gas Board will be given to the District Ranger.
5. Produced water disposal information shall be provided to the Authorized Forest Officer. This information will include disposal location, route, and amount of water disposal traffic on National Forest roads or lands.
6. The Operator shall take all reasonable precautions to prevent any dumping or spilling of oil or hazardous material on National Forest System lands and shall take appropriate preventive measures to ensure that any spill of such oil or hazardous materials does not enter any stream or other waters. Any spillage of oil or hazardous materials shall be immediately picked up and removed from National Forest System lands. Used oil resulting from the servicing or repair of equipment shall not be buried on National Forest System lands, and shall be removed and deposited in designated city, county or State disposal sites or recycling facilities.
7. The Operator shall provide a spill prevention control and countermeasure plan or similar document.

WELL SITE LAYOUT

1. Drill pad will be surface with adequate materials for all weather use during extended operations.
2. Operator has a continuing responsibility to identify all hazardous conditions on the permit area which would affect the improvements, resources, or pose a risk of injury to individuals. Any non-emergency actions to abate such hazards shall be performed after consultation with the authorized Forest Officer. In emergency situations, the Operator shall notify the authorized Forest Officer of its actions as soon as possible, but not more than 48 hours, after such actions have been taken.
3. Fill slopes will be built in layers. The maximum layer thickness before compaction shall be 6 inches. Compaction shall be accomplished by routing the hauling and spreading equipment (minimum contact pressure of 7.0 pounds per square inch) over the fill in such a manner that every point on the surface of each layer of fill will be traversed by not less than one tread track of the equipment.
4. Operator should: Immediately after site construction and as needed throughout the life of the authorization, install or construct erosion devices where appropriate. Also revegetate those disturbed areas which will not sustain traffic. The following will be accomplished as directed by the overseeing Forest Officer: (a). Sediment dams in gullies, etc., (b). Contour terraces on areas which exceed acceptable slope gradient, (c). Diversion terraces if the potential exists for heavy water flow onto or across the site, (d). Erosion control blankets on all cut or fill slopes that cannot be shaped to a 3:1 gradient or less.
5. Install and maintain silt fences or hay bale dams on downhill side of pads and terraced outlets to prevent silt from leaving the sites until sites are revegetated.

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6. Pits will be constructed in cuts, not in a fill. If fills cannot be avoided, then pit bottom and lower 50% of pit wall must be in cut. A closed tank system is required if the above cannot be met.

RESTORATION OF SURFACE

1. Revegetation, surface restoration of ground cover. The Operator shall be responsible for the prevention and control of soil erosion and gullying on lands covered by this permit and adjacent thereto, resulting from construction, operation, maintenance, and termination of the permitted use. Operator shall so construct permitted improvements to avoid the pooling, channeling or head-cutting of water. Operator shall revegetate or otherwise stabilize all ground where the soil has been exposed and shall construct and maintain necessary preventive measures to supplement the vegetation and as directed by the Forest Service.
2. A permanent vegetation cover will be established on all disturbed areas where bare mineral soil is exposed. The following are procedures recommended and commonly used to accomplish this reclamation. Except for those areas needed for access and/or production, areas where soil has been disturbed shall not be left unseeded for more than 30 days. If it is anticipated the area will be left exposed for a longer period, seeding should occur immediately at the conclusion of construction. Seeding includes cut and fill slopes, all ditches, shoulders, and any other areas exposed by the project. Sites such as pit walls, topsoil stock piles that will be exposed will be seeded to a prescribed mixture at the rates specified for season of the year.
3. Water bars and terraces. During occupancy and restoration, slopes or gradients 3 percent or greater will require water bars and/or terraces to be constructed and maintained. The Forest Officer will instruct where these structures will be placed.
4. Return site to its original contour. (a). Form any needed terraces. (b). Rip subsoil on pads and roads prior to spreading topsoil as directed by the Forest Officer, (c). Spread stockpiled soil evenly over the site, till the surface to produce about 2 to 5 inches of loose soil, (d). Fertilize and lime as required all disturbed areas at the rate specified, (e). Sow the recommended seed mixture on the freshly prepared soil bed.
5. Seed species, rate, and seasons. Where feasible use native or non-persistent nonnative species. **In case of seeding failure, the Operator will reseed following the same recommendations**.
6. Some recommend/approved seed application are:

	Season	Species (mix)	Rate/Acre *(each)*
A.	9/1 - 3/15	Wheat/Rye Grass	40 lbs.
		Bahia	20 lbs.
		White Clover	5 lbs.
	3/16 - 8/31	Bahia	20 lbs.
		Kobe Lespedeza	25 lbs.
		Brown Top Millet	20 lbs.

	Season	Species (mix)	Rate/Acre*(each)*
B.	1/1-4/30	Crimson clover	25 lbs.
		Bahiagrass	25 lbs.

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5/1-8/31	Bahiagrass	25 lbs.
	Brown Top Millet	25 lbs.
9/1-12/31	Crimson clover	25 lbs.
	Bahiagrass	25 lbs.
	Ryegrass	20 lbs.

7. Fertilizer (13-13-13) will be applied at a rate of 500 lbs. per acre.
8. Lime will be applied at a rate of 1 ton per acre.
9. Harrowing after fertilizing and seeding as recommended above, drag-harrow lightly, taking care not to cover seed too deeply. About 1/4 inch of soil should cover the seed. **Seeding must be repeated, if necessary, until success in establishing cover is achieved**.
10. Mulching: Mulch shall be weed free hay, stabilizing blankets/mats, wheat, oats, rice straw or materials approved Forest Service Officer. It shall be applied on the same day that seeding is done. If a mulching machine is used to apply the mulch, baled mulch material shall be broken apart in sufficiently small pieces to prevent it from going through the mulching machine in chunks. The mulch will be anchored into the soil with a mulch crimper. The mulch crimping equipment shall have straight, notched, dull blades no more than 10 inches apart and shall be equipped with a scraper. The mulching material will be anchored 2-3 inches into the soil. Anchoring the mulch shall be performed along the contour of the ground surface. The area seeded will be mulched in the same day. The mulch shall be applied evenly and uniformly over the areas at a rate of approximately 1 ton(s) per acre. Erosion control blankets will be used on cut or fill slopes which cannot be shaped to a 3:1 gradient or less. The utilization of appropriate machinery usually results in considerable savings and produces a more uniform job.
11. Reclamation may be approved not earlier than one year following the successful establishment of vegetative cover. Vegetative cover over at least 80 percent of the entire disturbed area will be considered successful establishment, if no gullies or other erosion related problems exist. All drilling / production related equipment or rubbish must be removed prior to Forest Service acceptance of the site as restored.
12. Operator is responsible for successful restoration regardless of weather or other natural factors.

PROTECTED, THREATENED, ENDANGERED, AND SENSITIVE (TES) SPECIES:

General:

1. If any threatened, endangered, or sensitive species is discovered in the project area prior to or during implementation, all work will stop until a recommendation is made by the USFS Wildlife Biologist.
2. All project personnel must be informed of the protected status of TES species and their protected habitat. The consequences of noncompliance with Federal and State laws protecting TES species must also be emphasized. *We recommend that crews be given a booklet or shown a poster that contains this information and that it be discussed with crews periodically during the project.*

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ARCHAEOLOGICAL PROTECTIONS

1. If any previously unknown archaeological resources are discovered in the project area during implementation (i.e. drilling and construction of roads), all work in the vicinity (50 meters) of the find will stop until the Forest Service District Archaeologist makes a recommendation.
2. It is illegal for individuals not supervised by a Federal Archaeologist to remove archaeological resources from the project area located on Federal lands. A fine and/or jail time may be given to individuals removing artifacts from the project area. - 36 CFR part 800- Protection of Historic Properties, Archaeological Resources Protection Act of 1979
3. In the event that significant archaeological resources are found during the project, drilling operations/heavy equipment use cannot continue until written concurrence is received from the State Historic Preservation Office.

OTHER RESOURCES PROTECTION

1. Reentry onto Forest Service lands may be restricted following 0.5 inches of rain or more. Operator/Contractors will check with a Forest Service representative prior to beginning work after such a rain event.
2. Care will be taken to avoid debarking (skinning) of residual trees.
3. Authorized agents shall be responsible for all damages and shall repair at their expense any improvements so damaged on National Forest land by the operations.
4. Cleanup of the area must be complete and thorough. All equipment, empty cartons, marking tape, oil cans, garbage, etc. must be removed.
5. Water sources may only be accessed from established roads, trails, and access routes if necessary.
6. Provisions for public safety, including but not limited to the use of warning signals, signs, and observers will be used. Slow Moving Vehicle emblems must be properly mounted on heavy equipment using Forest Service or public roads.

MONITORING

1. Any potential problems or observed resource damage is to be reported to the Forest Service representatives.
2. Collect at least two (2) samples from the fresh water well, if drilled.
    a. a baseline sample
    b. and a final sample just prior to plugging the water well. If the water well is to remain unplugged but secured, a yearly sample should be collected and tested.

- Samples are to be sent to a State and/or EPA Certified lab.
- It is recommended that samples be collect by State Certified Lab.

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- Samples should be tested for presence/levels of :
  - pH, chloride, sodium, sulfate, total dissolved solids (TDS), total suspended solids, alkalinity, bromide, calcium, metals
  -Volatile organic compounds (VOC), benzene, ethyl benzene, toluene, methane, carbon tetrachloride

(With prior approval of Forest Officer, sampled items list may be adjusted. A certified lab may have a standard test that aqequately covers the listed items.)

c. Results of samples shall be reported to Forest Officer.

3. Shut down of work may be ordered by the District Ranger whenever he determines a serious violation of the Surface Use Plan of Operations (SUPO) or any other necessary permit occurs that requires immediate correction, or when minor violations repeatedly occur.

Operator's Representatives: Stroud Petroleum 318-425-0101
Butch Hickey 903-633-2493 / 903-926-0101
Tommy Huddleston 318-550-2312
Gary Abrams 318-455-3848

Field representatives (Responsible for compliance with approved surface use operations plan)

As Above

Agreed to by:

Gary S. Abrams — 11/25/14
Operator/Permittee — Date

Gary S. Abrams
Stroud Petroleum LLC

Stephen E Sanders — 01/15/15
FS Approver ADFS — Date

USDA United States Department of Agriculture | Forest Service | National Forests In Mississippi | 200 South Lamar Street Suite 500N Jackson, MS 39201 601/965-1600

File Code: 2820
Date: January 15, 2015

Elizabeth Ivy
BLM, Eastern States, JFO
411 Briarwood Drive
Jackson, MS 39206

RE: Stroud Petroleum, Inc.
Homochitto 25-3 #3
Section 25, Township 6 North, Range 2 East
Franklin County, Mississippi
Homochitto Ranger District

Dear Elizabeth:

Enclosed please find the Decision Memo for the Surface Use Plan of Operations, along with the Conditions of Approval, the Biological Evaluation, the Archaeological Report, Scoping Letter, and published legal documents for the above captioned drill site.

Please send a signed copy of the approved APD to Carrie Beard on the Homochitto RD. 1200 Hwy 184 W, Meadville, MS 39653.

Sincerely,

Catherine J. Bailey

for Staff Officer

Enclosures

DECISION MEMO

for

Stroud Petroleum, Inc.
Homochitto 25-3 #3
Sec. 25, T6N, R2E
Franklin County, Mississippi

United States Department of Agriculture
Forest Service
National Forests in Mississippi
Homochitto Ranger District

DECISION

I have decided to authorize the Surface Use Plan of Operations for the Application for Permit to Drill the Stroud Petroleum Homochitto 25-3 #3 well. This proposal includes constructing drill pad and improving an access road for the purpose of drilling a well to an approximate depth of 10,850 feet. All power lines, communication lines, pipelines or other required utilities for this well will be located within the access corridors. Water will be supplied by drilling a fresh-water well onsite, or supplied by a nearby existing water well also operated by Stroud Petroleum. A drilling rig will be moved in for exploratory evaluation for potential production of oil. If the well is productive, a tank battery would be installed within the facility location/site. If the well is not economically productive, or when the well is no longer commercial operable, it will be plugged and the site will be restored. Removal of merchantable timber incidental to this project would be accomplished using either a commercial timber sale or with timber settlement procedures. Time from start to finish of the project will be approximately 90 days. A producing well will have a life expectancy of about 15-20 years.

This project is located in Section 25, Township 6 North, Range 2 East, Franklin County, off US Highway 84, approximately 2.5 miles east of Roxie, Mississippi. Stroud Petroleum has the legal right to drill on this federal oil and gas lease (MS-BLM-A-047559) under the Mineral Leasing Act, within the limitations of appropriate environmental protection.

This decision is based on a thorough review of relevant scientific information and consideration of public concerns. In my conclusion, I considered the possibility of incomplete or unavailable information, scientific uncertainty, and risk. My conclusion is based on the findings required by other laws and regulations. Management requirements that are part of the proposed action include site specific mitigation measures detailed in the USFS Conditions of Approval.

This project falls within 36 CFR 220.6(e), Subpart 17 (Approval of a Surface Use Plan of Operations for oil and natural gas exploration and initial development activities, associated with or adjacent to a new oil and/or gas field or area). Additionally, no extraordinary circumstances exist that may cause the action to have significant effects. Therefore, this action is categorically excluded from documentation in an environmental assessment or environmental impact statement.

PUBLIC INVOLVEMENT

Public involvement was initiated by letter dated October 14, 2014, requesting public input. The District maintains a mailing list of individuals who have expressed an interest in minerals operations and related projects. A location map describing the project and a letter inviting public involvement and requesting responses was mailed to each individual or organization on this list. Legal Notice was published in the **Clarion-Ledger** (Jackson, Mississippi), the newspaper of record, on October 19, 2014. No comments or responses were received.

In addition, the project was posted on the National Forest in Mississippi internet site for Schedule of Proposed Actions in January 2015.

FINDINGS REQUIRED BY OTHER LAWS AND REGULATIONS

This project is consistent with the goals and management directions, including the standards and guidelines, in the Land and Resource Management Plan for the National Forests in Mississippi, as amended. Furthermore, it implements the Mining and Minerals Policy Act of 1970. This project also complies with all other applicable laws and regulations such as the Endangered Species Act, Clean Water Act, National Historic Preservation Act, Archeological Resources Protection Act, National Environmental Policy Act, 36 CFR 228 Subpart E, 43 CFR 3100, 43 CFR 3160, Bureau of Land Management Onshore Oil and Gas Orders 1-7, Federal Onshore Oil and Gas Leasing Reform Act of 1987, Mississippi Oil and Gas Board Statewide Rules and Regulations, and the Best Management Practices for Mississippi.

Other laws, regulations, agencies, and documents prescribing additional requirements for mitigation of impacts include:

- Legal requirements for materials classified as hazardous or pollutants, water quality standards, and overall environmental protection are set by the U. S. Environmental Protection Agency.
- The BLM is the agency tasked with control and regulation of oil and gas exploration and production on federal lands.
- The State of Mississippi's Oil and Gas Board also enforces laws and regulations specific to local conditions and activities.
- The Forest Service is responsible for setting specific requirements for surface protection and restoration of National Forest land. Broad mitigation measures are detailed in the Forest Service Rules and Regulations contained in 36 CFR 228 Subpart E. Site specific mitigation measures are detailed in the USFS Conditions of Approval, which are included in the approved Application for Permit to Drill issued by the BLM.

CATEGORY OF EXCLUSION

There are no extraordinary circumstances as defined in FSH 1909.15, (36 CFR 220.6(b)), which might cause the action to have significant effects on flora, fauna or the quality of the human environment.

Information on potentially occurring proposed, threatened, endangered, and sensitive (TES) species or their habitat was reviewed from district occurrence records, the database of the Mississippi Natural Heritage Program, and a site-specific biological evaluation. Specifically:

1. **Federally listed threatened or endangered species or designated critical habitat, species proposed for Federal listing or proposed critical habitat, or Forest Service sensitive species**

   The Biological Evaluation prepared for this area determined that for federally listed endangered and threatened species, this proposed action is *not likely to adversely affect* the Louisiana black bear and would have *no effect* on the Red-cockaded woodpecker.

   In addition, the BE determined that for other listed forest sensitive species or their habitat, this project would have no impact.

   This finding was concurred with by the U.S. Fish and Wildlife Service on October 23, 2014.

2. **Flood plains, wetlands, or municipal watersheds**

   The proposed installation is not in a floodplain or wetland and no municipal watersheds are affected.

3. **Congressionally designated areas, such as wilderness, wilderness study areas, or national recreation areas**

   No part of this project is congressionally designated as wilderness, wilderness study area, national recreation area, inventoried roadless area, potential wilderness area, or research natural area.

4. **American Indian and Alaska Native religious or cultural sites**

   No American Indian religious or cultural sites are affected.

5. **Archaeological sites, or historic properties or areas**

   The potential for loss or damage to archaeology sites or historic properties resources was assessed October 25, 2014 by a third party archaeologist, Noel R. Stowe, RPA, MA. No sites or resources were found. The Mississippi State Historic Preservation Officer concurred with the assessment on January 6, 2015.

The mere presence of one or more of these resource conditions does not preclude use of a categorical exclusion: it is the degree of the potential effect of proposed action on these resource conditions that determines whether extraordinary circumstances exist.

This proposed action is categorically excluded from further analysis and documentation in an environmental impact statement or environmental assessment because there are no extraordinary circumstances related to the proposed action that might cause the action to have significant effects on the quality of the human environment. The project is consistent with 36 CFR 220.6(e), Subpart 17 (Approval of a Surface Use Plant of Operations for oil and natural gas exploration and initial development activities, associated with or adjacent to a new oil and/or gas field or area.)

ENVIRONMENTAL JUSTICE AND CIVIL RIGHTS (Executive Order 12898 2/11/94)

Civil rights impact analysis is an integrated requirement for projects falling under the National Environmental Policy Act (NEPA) including those projects that qualify for categorical exclusion. This project is located on National Forest land and is in a remote location visible only by leaving commonly traveled roads. The interdisciplinary team did not identify any environmental effects that single out individuals or groups, including those defined as minorities or other identified categories, in a disparaging manner.

No social issues of any type were identified through the review or public involvement. The absence of effects or issues leads to the conclusion that civil rights and environmental justice impacts do not occur because of this project, and that additional analysis is not necessary.

ADMINISTRATIVE REVIEW OR APPEAL OPPORTUNITY

This decision is not subject to appeal pursuant to 36 CFR 215.

IMPLEMENTATION DATE

Implementation may occur immediately upon Bureau of Land Management's issuance of the permit.

CONTACT PERSON

Additional information about this decision can be obtained from the District Ranger, USDA Forest Service, Homochitto Ranger District, 1200 Hwy. 184 East, Meadville, MS 39653; or by telephone at (601) 384-5876; or email, bprudhomme@fs.fed.us.

Stephen E. for

MARGRETT L. BOLEY
Forest Supervisor
National Forests in Mississippi

01/15/15
Date

MISSISSIPPI DEPARTMENT of ARCHIVES AND HISTORY

MDAH

PO Box [illegible], Jackson, MS [illegible]
601-576-6850 • Fax 601-576-6975
mdah.state.ms.us
[illegible]

January 6, 2015

Margrett L. Boley, Forest Supervisor
USDA, Forest Service
200 S. Lamar Street, Suite 500-N
Jackson, Mississippi 39201

RE: Phase I Cultural Resources Survey of proposed Stroud Petroleum Homochitto Well 25-3 No. 3, MDAH Project Log #12-041-14, Report #14-0488, Franklin County

Dear Gretta:

We have reviewed the October 2014 cultural resources survey by Noel R. Stowe, received on December 5, 2014, for the above referenced project pursuant to our responsibilities under Section 106 of the National Historic Preservation Act and 36 CFR Part 800. After review, we concur that no cultural resources eligible for listing in the National Register of Historic Places appear to be in the project area or are likely to be affected by the proposed project. As such, we have no reservations with the undertaking.

There remains the possibility that unrecorded cultural resources may be encountered during the project. Should this occur, we would appreciate your contacting this office immediately in order that we may offer appropriate comments under 36 CFR 800.13.

Please provide a copy of this letter to Mr. Stowe and to Mr. Scurlock at Stroud Petroeum. If you have any questions, please let me know.

Sincerely,

Greg Williamson
Review and Compliance Officer

FOR: H.T. Holmes
State Historic Preservation Officer

Beard, Carrie A -FS

From: David Felder <david_felder@fws.gov>
Sent: Thursday, October 23, 2014 8:46 AM
To: Gordon, Kenneth L -FS
Cc: Beard, Carrie A -FS
Subject: RE: BE's for oil locations with same oil field

Kenneth and Carrie,

I have no objections with referencing the previous BE's as part of the current project reviews. I concur that these projects are similar in nature and close to previously reviewed (existing BE's) projects and therefore your "effects determination" and our concurrence would be valid for these new projects as well.

Thanks
david

David Felder
Fish and Wildlife Biologist
US Fish and Wildlife Service
6578 Dogwood View Parkway, Suite A
Jackson, MS 39213
david_felder@fws.gov
(601) 321-1131 office
(601) 965-4340 fax

From: Gordon, Kenneth L -FS [mailto:klgordon@fs.fed.us]
Sent: Wednesday, October 22, 2014 5:09 PM
To: david_felder@fws.gov
Cc: Beard, Carrie A -FS
Subject: FW: BE's for oil locations with same oil field

Trying again with newest map

From: Beard, Carrie A -FS
Sent: Wednesday, October 22, 2014 4:47 PM
To: Gordon, Kenneth L -FS
Subject: RE: BE's for oil locations with same oil field

Thanks... If they ask... attached you will find the map of the "additional" possibilities and their spacing in relation to the already drilled locations.
I really appreciate all your help. CB

From: Gordon, Kenneth L -FS
Sent: Wednesday, October 22, 2014 4:34 PM

To: Beard, Carrie A -FS
Subject: FW: BE's for oil locations with same oil field

Just sent to fws. Forgot to add you as cc:, but this almost as good?

From: Gordon, Kenneth L -FS
Sent: Wednesday, October 22, 2014 4:24 PM
To: david_felder@fws.gov
Subject: BE's for oil locations with same oil field

David,
These are the oil wells that we discussed the other day. We have already sent you the two BEs that are attached.

When we last talked they were planning on a third, since they we have helped stake two more and they are talking about a 6th well, all in the same general area. The location has not changed, actions remain the same. There are no RCW's known anywhere nearby. The only black bears would be transient (if then).

Attached you will find two Biological Evaluations for oil/gas wells within the Roxie Field.
This is field is located in Township 6 North, Range 2 East; mainly in Sections 13 and 25. The attached BE's were conducted on locations in Sec 13 and 25.
One was completed in 2013 and the other in 2014.

We currently have proposals for 3 additional well sites in section 25. Attached you will find a map for the permit we are currently working on; the Homochitto 25-3 #3.
The other two wells will be north and one south of this location.

The question has been raised "Could the previous BE's be tiered to or referenced, instead of re-evaluating an area for the 3rd, 4th and 5th times?"
We feel like the previous BEs cover all eventualities. Do you agree. I am proposing handling this and future wells in this vicinity with a letter to the file that nothing has changed that would change my determinations.

Carrie Beard
Oil and Gas Resource Specialist
HOMOCHITTO RANGER DISTRICT
1200 Hwy 184 E
Meadville, Ms 39653
Office 601-384-2814 x223
Cell 601-660-6319
cabeard@fs.fed.us

BIOLOGICAL EVALUATION
OF
FOREST MANAGEMENT ACTIVITIES PROPOSED
FOR

Stroud Petroleum Inc., Homochitto 25-5 #2

(Compartment 322)
Knoxville Quadrangle

USDA Forest Service
Southern Region (8)
National Forests in Mississippi
Homochitto National Forest
Homochitto Ranger District
Mississippi

Prepared by:

Kenneth L. Gordon Kenneth L. Gordon Date 27 February 2014
Wildlife Biologist, USDA Forest Service

Concurred by:

Stephen W. Ricks David Felder Date 6 March 2014
Field Supervisor,
US Fish and Wildlife Service

BIOLOGICAL EVALUATION
OF
FOREST MANAGEMENT ACTIVITIES PROPOSED
FOR

Stroud Petroleum Inc., Homochitto 25-5 #2

(Compartment 322)
Knoxville Quadrangle

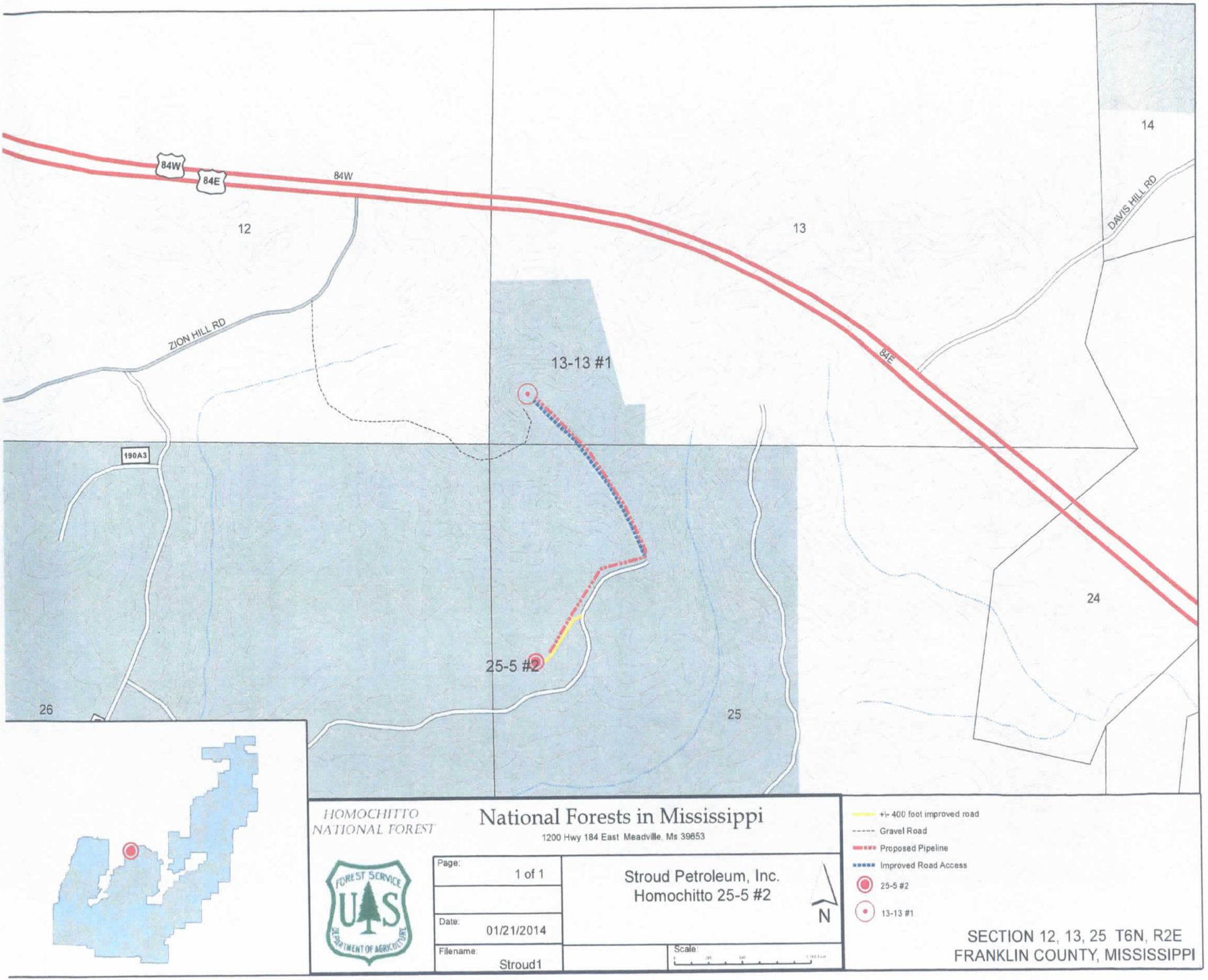
USDA Forest Service
Southern Region (8)
National Forests in Mississippi
Homochitto National Forest
Homochitto Ranger District
Mississippi

Prepared by:

Kenneth L. Gordon _____ Date_____
Wildlife Biologist, USDA Forest Service

Concurred by:

Stephen W. Ricks_____ Date _____
Field Supervisor,
US Fish and Wildlife Service


84W
84E
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12
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14
DAVIS HILL RD
ZION HILL RD
84E
13-13 #1
190A3
25-5 #2
26
25
24
HOMOCHITTO NATIONAL FOREST
National Forests in Mississippi
1200 Hwy 184 East Meadville, Ms 39653
FOREST SERVICE
US
DEPARTMENT OF AGRICULTURE
Page: 1 of 1
Date: 01/21/2014
Filename: Stroud1
Stroud Petroleum, Inc.
Homochitto 25-5 #2
N
Scale:
+/- 400 foot improved road
Gravel Road
Proposed Pipeline
Improved Road Access
25-5 #2
13-13 #1
SECTION 12, 13, 25 T6N, R2E
FRANKLIN COUNTY, MISSISSIPPI

Introduction
This Biological Evaluation (BE) documents the likely impacts on proposed, endangered, threatened, and sensitive (TES) species from forest management activities proposed for this oil well drilling project.

As a result of a recent court decision, Forest Plan Amendment # 16 and the Region 8 Supplement to FSM 2670 are no longer in effect. This BE follows the process used to decide when to inventory for TES species that is consistent with the requirement found in the Vegetation Management EIS for the Coastal Plain and Piedmont.

This BE is in accordance with direction given in Forest Service Manual (FSM) 2672 and to meet the 1989 Vegetation Management standard. As part of the NEPA decision making process, the BE provides a review of Forest Service (FS) activities in sufficient detail to determine how an action will affect any TES species. TES species, taken from both state and federal lists, are species whose viability is most likely to be put at risk from management actions.

The Regional Forester's list of "sensitive" species for the National Forests in Mississippi (USDA 2001) and National Forests in Mississippi Threatened and Endangered Species List (USDA 2006) were reviewed to devise a target list of TES species for the Homochitto Ranger District, Homochitto National Forest. Two federally listed and 20 sensitive species are confirmed, likely to occur, or have the potential to occur on the Homochitto National Forest.

Table 1. TES taxa recorded from or likely to occur on the Homochitto Ranger District.

Common Name	Scientific Name	Status*			Occurrence
		USFWS	FS	State	
Louisiana black bear	*Ursus americana luteolus*	T		S3	Potential
Red-cockaded woodpecker	*Picoides borealis*	E		S1	Confirmed
Webster's salamander	*Plethodon websteri*		S	S3	Possible
Bald eagle	*Haliaeetus leucocephalus*		S	S1	Confirmed
Bachman's sparrow	*Aimophila aestivalis*		S	S3	Confirmed
Pearl blackwater crayfish	*Procambarus penni*		S	S3	Confirmed
Alabama shad	*Alosa alabamae*		S	S1	Unlikely
Crystal darter	*Ammocrypta asprella*		S	S2	Unlikely
Broadstripe topminnow	*Fundulus euryzonus*		S	S2	Unlikely
Natchez stonefly	*Alloperla natchez*		S	S2	Confirmed
Chukcho stonefly	*Haploperla chukcho*		S	S2	Confirmed
Rayed creekshell	*Anodontoides radiatus*		S	S2	Unlikely
Rafinesque's big-eared bat	*Corynorhinus rafinesquii*		S	S3	Confirmed
Southeastern myotis	*Myotis austroriparius*		S1	S1	Confirmed
Arogos skipper	*Atrytone arogos arogos*		S	S2S3	Possible?
A moss	*Trachyxiphium heteroica*		S	S1	Confirmed
Cypress-knee sedge	*Carex decomposita*		S	S3	Confirmed
Small's woodfern	*Dryopteris X australis*		S	S1	Confirmed
Bay starvine	*Schisandra glabra*		S	S3	Confirmed
Carolina fluffgrass	*Tridens carolinianus*		S	S3S4	Confirmed
Fetid trillium	*Trillium foetidissimum*		S	S3	Confirmed
Ravine sedge	*Carex impressinervia*		S	S1	Confirmed

* See Appendix 3 for explanation of codes.

This list is based on documented occurrences, habitat presence/suitability within or near the National Forest boundaries, and the geographic range of TES species gathered from the records of the Mississippi Natural Heritage Program and other credible sources (i.e., literature reviews, conversations with knowledgeable biologists, etc.). See Appendices 1 and 2. Table 1 depicts the 22 TES taxa considered in this Biological Evaluation.

Potential risks resulting from management actions were assessed by referring to available occurrence records and to information on the general biology of these species obtained from survey reports, the Mississippi Natural Heritage Program and the scientific literature.

DETERMINATION OF EFFECTS

Summary of determination of effects

Species	Determination based on the Proposed Action	Determination based on No Action
Louisiana Black Bear	NLAA	NE
Red-cockaded woodpecker	NE	NE
Webster's salamander	NI	NI
Bald Eagle	NI	NI
Bachman's sparrow	NI	NI
Pearl blackwater crayfish	NI	NI
Alabama shad	NI	NI
Crystal darter	NI	NI
Broadstripe topminnow	NI	NI
Natchez stonefly	MII	NI
Chukcho stonefly	MII	NI
Rayed creekshell	NI	NI
Rafinesque's big-cared bat	NI	NI
Southeastern myotis	NI	NI
Arogos skipper	NI	NI
Trachyxiphium heteroica (moss)	NI	NI
Cypress-knee sedge	NI	NI
Small's woodfern	NI	NI
Bay starvine	NI	NI
Carolina fluffgrass	NI	NI
Fetid trillium	MII	NI
Ravine sedge	NI	NI

Threatened and Endangered Species
NE = No Effect, NLAA = Not likely to adversely affect, LAA = Likely to adversely affect

Sensitive Species
NI = No Impact
MII = May impact individuals but not likely to cause a trend to federal listing or a loss of viability
BI = Beneficial impact
L = Likely to result in a trend to federal listing or loss of viability

Affected Area and Proposed Action

The Homochitto District has received a proposal from Stroud Petroleum Inc. to drill a well and conduct testing to see if this project is commercially productive on Federal Lease MS-BLM-A-047559. Drill site location is in Section 25, of Township 6 North, Range 2 East, Franklin County (*see enclosed map*). An old logging road would be improved for about 400 feet. If this well produces in commercial quantities, a tank battery/production facility would be placed at the well location. The access road and that part of the location needed for continued operations will be surfaced with gravel. A pipeline, ±2800 feet, would be installed along and within the access road and to the east along Forest Service Road 185 to an old logging road that leads to the Homochitto 13-13 #1 location.
Total acreage expected to be disturbed is approximately 3.50± acres.

The Stroud Petroleum Homochitto 25-5 #2 project would consist of the following types of field activities: 1) removal of timber through a commercial timber sale/settlement, 2) clearing of stumps and slash, 3) stock piling topsoil prior to dirt work to level the pad site, 4) drilling of a water well or temporarily piping water from 13-13#1 well, 5) moving in a drilling rig to evaluate the well for oil/gas production potential 6) improvement of the access road and 7) installing pipeline from 25-5 #2 well to the 13-13 #1 location (see map). If no oil or gas is found the drilling rig will be removed, the well will be plugged and the site restored. Time from start to finish of the project would be approximately 90 days. A producing well would have a life expectancy of approximately 15 years.

Inventories.

The Mississippi Natural Heritage Program database was consulted for Threatened, Endangered and Sensitive species' locations within the project area (Mississippi Natural Heritage Program, 2001). The Mississippi Natural Heritage Program maintains the single most comprehensive data base on the location, numbers, and status of rare and endangered plants, animals, and communities of Mississippi. The District TES database and distribution maps were reviewed in order to disclose areas of known populations of TES species within the proposed project area. The federally listed red-cockaded woodpecker is surveyed over the ranger district in 10 year sequential surveys of suitable pine and pine-hardwood habitats for new occurrences. In addition, active clusters of red-cockaded woodpeckers are surveyed annually and nest checks done during the nesting season (late April to early June). Breeding bird surveys have been conducted at over 200 permanently established points in 1994, 1995, 1999, 2000 - Present. Numerous fish samples have been taken from various streams across the forest (Ebert, D.J., R.M. Weill, and P.D. Hartfield, 1985; Ebert, D.J. and P.D. Hartfield, 1981; Johnston, C.E. and J.G. McWhirter, 1996; Douglas, N.H., 1975, Warren, M.L., S. Adams, W. Haag, J.G. McWhirter, and L.G. Henderson, 2001).

The Mississippi Natural Heritage Program conducted a rare plant inventory of the Homochitto National Forest (Gordon, K.L. and J.A. Smith, 1992) as well as an overall rare/sensitive plant and animal survey of four proposed lake sites on the Homochitto NF (Gordon, K.L., *et. al.*, 1992). A study of the vascular flora of Amite County was completed by Mac Alford (1999) and reported on sensitive and rare plants collected on and near the Homochitto NF. A study of the

effects of red-cockaded woodpecker management on breeding native songbirds has also been completed (Burger, L.W., Jr., C. Hardy, and J. Bein 1998). Surveys of two stoneflies, once federal candidates for listing, have been conducted on the Homochitto NF (Hardy, C.L., *et. al.*, 1994) (Meriwether and Hargis 2002, unpublished data).

Wildlife Biologist, Ken Gordon, surveyed the proposed oil well site on February 19, 2014 accompanied by Carrie Beard, Minerals Technician. The location is in an area dominated by a loblolly pine-hardwood forest with a thick understory of hardwoods (Photos, Pages 1 and 20). The site is ca. 1920 feet south of Stroud Petroleum Homochitto #1 (BE prepared April 25, 2013). The site displays no evidence of recent fire and is outside of the established burn block. The location is outside of the RCW Habitat Management Area and approximately 4 miles north and west from the nearest active RCW cluster. This survey searched for suitable habitats for rare plants and animals which were considered possible inhabitants of the project area. Potential risks resulting from management actions were assessed by referring to available occurrence records and to information on the general biology of these species obtained from survey reports, and the scientific literature. Due to the past disturbance in the area, the suitability of the site providing such habitat is considered marginal at best. At the request of Ms. Beard, the well site was moved away from a population of switch cane in order to minimize impact on this species.

DETERMINATION OF EFFECTS

Threatened and Endangered Species

Louisiana black bear

In 1992, it was estimated that only 25 to 50 black bears still remained in the state. But by 2010, biologists with the Mississippi Department of Wildlife, Fisheries and Parks estimate that number may have increased to 100 to 120 (http://www.bbcc.org). Black bears eat a wide variety of foods, including vegetable matter such as grasses, fruits, seeds, nuts and roots. Insects, fish, carrion, and small rodents are also eaten. Blackberry thickets, hardwood forests producing acorns and other mast and containing shrubs, fallen logs, and brush-piles are typical habitat for black bears. (Mississippi Department of Wildlife, Fisheries and Parks, 1995).

A pattern of repeated sightings near Sandy Creek and confirmed bear tracks in Sandy Creek suggest black bears do occur, at least as transients on and in the vicinity of the Sandy Creek Wildlife Management Area (Adams County) of the Homochitto National Forest, which is about 18 miles west and south of the proposed oil well location. Louisiana black bears are not confirmed to reside on the National Forest. There is a confirmed population of at least 3 bears in the general area of southern Wilkinson County. Two of these bears are radio-collared and no sightings of these tagged bears have yet been observed on the Homochitto NF. Recently a radio collared female black bear and five cubs were found in Wilkinson County (2005). A confirmed sighting of a black bear has also been documented in Amite County (2001) approximately 5 miles south of the southern portion of the Homochitto National Forest.

Black bears exist primarily in bottomland hardwood and floodplain forest, although use of upland hardwood, mixed pine/hardwood and coastal Flatwoods and marshes has been documented. Black bears are adaptable and opportunistic, and can survive in the proximity of humans if afforded areas of retreat that ensure little chance of close contact with humans. Forest management practices, in general, have much less impact on black bear than the density of roads with unrestricted traffic. Black bears could appear in any large block of forest on the Homochitto NF with limited road access but the most likely areas to anticipate new population growth would be in the southwestern quadrant of the forest (Wilkinson and Adams counties).

Direct Effects – Transient bears could be utilizing areas within the project area, therefore, if a bear was located within the project vicinity during management activities it could be temporarily disturbed. However, because bears in this area are transient and den trees or denning areas will not be disturbed this project is not likely to adversely affect the bear.

Indirect Effects -- The density of roads in the area will not increase. Large hollow trees that may be suitable for denning were not found on the proposed gas well site. Therefore, there should be no negative indirect effects to the black bear from this project.

Cumulative Effects – Cumulative effects should be discountable and therefore are not expected to impact this species.

There are no documented observations of black bears in the immediate area of the proposed oil well location, however black bears are known to move long distances and the possibility of a bear using the area does exist. Because the proposed action will impact a very small portion of land the project should have little impact on possible black bear habitat, and because of the apparent absence of black bears in the area, it is my determination that the proposed action is **"not likely to adversely affect the Louisiana black bear"** because of the discountable direct impacts. The No Action Alternative will have **"no effect"** on populations of the species.

Red-cockaded woodpeckers

Red-cockaded woodpeckers (RCW) are native to the open, fire-maintained, pine forests of the southeastern U.S. This species requires large areas of mature, open, pine forests to meet both foraging and nesting requirements. Hardwood midstory negatively impacts the suitability of pine stands for nesting red-cockaded woodpeckers. Management practices that promote the establishment of healthy pine stands are necessary to meet the requirements of Red-cockaded Woodpecker habitat. In general, pine trees 30 years or older are needed for foraging habitat and pine trees 70 years or older are needed for nesting habitat. Trees with red heart fungus that weakens the heartwood are preferred for cavity excavation.

According to records for the Homochitto National Forest, there were 31 active RCW clusters in 1980. In 1991, the number of active RCW clusters had dropped to 25. In 1990, the Homochitto National Forest began to actively thin pine, implement hardwood midstory reduction, prescribe burn, and install artificial nesting inserts for RCW habitat enhancement. These efforts were largely focused in and adjacent to active RCW clusters. Through these combined efforts, the

current RCW population for the Homochitto National Forest has now exceeded 129 active clusters.

The proposed well location does not occur within the RCW Habitat Management Area. The site is also several miles from the closest active RCW cluster. A site visit found there was no suitable habitat on the proposed well site.

Direct Effects – Since development of the site will not require the removal of any RCW cavity trees, and the proposed site is not within the RCW HMA, there are no negative direct effects expected as result of the proposed activity.

Indirect Effects – because the proposed project is well away from any active cluster and because the project will not impact RCW habitat, no negative indirect effects are expected. Because foraging habitat would not be impacted a foraging analysis was not conducted.

Cumulative Effects – The cumulative effects are discountable and therefore not expected to impact this species.

Since no direct, indirect or cumulative effects are expected, it is my determination that the proposed action will have **"no effect"** on the red-cockaded woodpecker. The No Action Alternative will have **"no effect"** on populations of the species.

FS Sensitive Species

Webster's salamanders are strongly associated with moist, north-facing, mixed-hardwood slopes with rock outcrops on or near the surface (Wilson 1995). Distribution across their range is very disjunct and they have not been documented on the Homochitto National Forest. A reptile and amphibian survey of four potential lake impoundment sites on the Homochitto Ranger District was conducted for 29 field days (between 21 April and 18 November 1992). Utilizing past field experience with this species the surveyor searched under logs and leaf litter above streams in hilly terrain and found no specimens. The surveyor concluded that while Webster's salamander occurs in southwest Mississippi in a disjunct range pattern, its occurrence on the Homochitto Ranger District might be expected (Vandeventer, T.L., 1992). On February 3, 1998, two potentially suitable sites in Compartment 43 (but north east of the proposed well site but containing rock outcrops and therefore presumably more suitable habitat) were surveyed for Webster's salamanders, but none were located. Analysis Unit 27 (Wilkinson County) which has rock outcrops, was surveyed on March 17, 2005. Salamanders were not found. There are no rock outcrops within the proposed well area. Therefore, it is unlikely to be suitable habitat for the Webster's salamander. No apparent suitable habitat was found on the April 15 site visit. There are no known occurrences of this salamander on the Homochitto NF.

Direct Effects – Due to the apparent absence of salamander habitat within the proposed oil well site, there should be no negative direct effects on the Webster's salamander.

Indirect Effects -- None

Cumulative Effects -- The cumulative effects should be discountable and therefore are not expected to impact this species.

The proposed action should have **"no impact"** due to lack of rock outcrops and the small size of the area to be disturbed. The no action alternatives will have **"no impact"** on this species.

Bald eagle

Bald eagles are generally limited to winter occupancy in Mississippi. The bald eagle is a large bird that generally occurs in the vicinity of lakes, rivers, and marshes and along seacoasts. Nesting usually occurs in areas with mature trees near large bodies of water. The diet of southeastern bald eagles is primarily fish, supplemented with reptiles, waterfowl, small mammals, and carrion. (Mississippi Department of Wildlife, Fisheries and Parks, 1995). Although bald eagles winter and breed on St. Catherine's Creek National Wildlife Refuge (approximately 25 miles to the West of this well site), no suitable habitat is known to occur in the project area, and this area is considered generally unsuitable habitat for the bald eagle.

Direct Effects – Since no bald eagles or their nests have been observed in the project area, no direct effects on this species are expected.

Indirect Effects – Suitable nesting and foraging habitat is not in the project vicinity. Consequently, the proposed activity should have no indirect effects on bald eagles.

Cumulative Effects - Cumulative effects should be discountable and therefore are not expected to impact this species.

Based on the lack of suitable habitat in the project area, it is my determination that the proposed action will have **" no impact"** on the bald eagle. The no action alternatives will have **"no impact"** on this species.

Bachman's sparrow is a habitat specialist. Historically, it was found in mature to old growth southern pine woodland subject to frequent growing-season fires. It is a fugitive species, breeding wherever fires create suitable conditions. It requires a well-developed grass and herb layer with limited shrub and hardwood midstory. Ideal habitat was originally the extensive longleaf pine woodlands of the South. In the southeastern U.S. on the Coastal Plain breeding habitat usually is open pinewoods with thick cover of grasses or saw palmetto. Bachman's sparrow is able to colonize recent clearcuts and early seral stages of old field succession, but such habitat remains suitable only for a short time. These habitat conditions are nearly synonymous to the habitat associated with red-cockaded woodpecker restoration. On the Homochitto National Forest, Bachman's sparrow populations have been observed in active red-cockaded woodpecker clusters and adjacent suitable red-cockaded woodpecker habitat where thinning of the hardwood component and regular prescribed fire has taken place. Currently the proposed gas/oil well site is not suitable for the Bachman's sparrow.

Direct Effects – Because suitable habitat does not exist within the area proposed for gas/oil well development, there should be no direct effect on Bachman's sparrow.

Indirect Effects – Because no suitable habitat will be lost due to the proposed project, there could be negative indirect effects to the sparrow.

Cumulative Effects -- The cumulative effects should be discountable and therefore are not expected to impact this species.

Because of the potential negative direct and indirect effects to the sparrow by the proposed project, there should be a **"no impact"** determination for this species for both alternatives.

The **Pearl blackwater crayfish** inhabits permanent –or nearly so streams with clear sandy bottoms. The species occupies a limited range which is confined to drainages associated with the west bank of the Pearl River and streams associated with the north shore of Lake Ponchatrain. Recent records from the Homochitto National Forest in Amite and Franklin Counties are the first records from the Homochitto River drainage (J.F. Fitzpatrick, in press). The Homochitto National Forest collections were made from water under exposed tree roots in streambanks in Tanyard Creek, Richardson Creek, Porter Creek, and Dry Creek (in the McGehee Creek drainage). (Tom Mann, Pers. Comm. 2000). An additional collection from Brushy Creek was made in 1980 (Collections Records, Mississippi Museum of Natural Science). Collection records confirm the presence of the Pearl blackwater crayfish within the Homochitto NF and it is likely that other undocumented occurrences occur on the forest. Because flowing streams are not within the proposed well site, crayfish will not be directly affected by this proposal.

Direct Effects – Since there is no streams at the well site, there should be no direct effect on the pearl blackwater crayfish from either alternative

Indirect Effects – The no action alternative is anticipated to result in no change of habitat suitability for the pearl blackwater crayfish. Suitable habitat for pearl blackwater crayfish may deteriorate if sediment washes from the site into a flowing stream. However, mitigations would prevent soil loss from the site, therefore there should be little to no negative indirect effects to this species by this project.

Cumulative Effects -- The cumulative effects should be discountable and therefore are not expected to impact this species.

The proposed action will have **"no impact"** on the discussed species. The no action alternative will have **"no impact"** on this species.

The **Alabama shad** is an anadromous species that spawns in large flowing rivers from the Mississippi River to the Suwannee River of Florida (Office of Protected Resources, 2001). The largest existing population occurs in the Apalachicola River of Florida (Office of Protected

Resources. 2001). Other notable populations persist in the Pascagoula River drainage of Mississippi and the Mobile River drainage of Alabama. The fish enter freshwater during the spawning season (January to April) when water temperature reaches 19 to 22 degrees Celsius. Spawning is known to occur over sand, gravel, and rock substrates in a moderate current (Office of Protected Resources, 2001).

The decline of the Alabama shad in Alabama has been blamed on the construction of a series of high lift navigating dams in the Alabama and Tombigbee Rivers, which block spawning migration (Office of Protected Resources, 2001). Other threats to the shad include poor water quality and commercial and navigational dredging of sand and gravel from river bars used for spawning (Office of Protected Resources, 2001).

Currently the closest known population of Alabama shad was collected from the Amite River in Amite County, Mississippi (Mississippi Museum of Natural Science, Pers. Comm. 8/13/01). It is possible, but highly unlikely, for the Alabama shad to be in the Homochitto River drainage (Mississippi Museum of Natural Science, and Southern Research Station, Pers. Comm. 8/13/01). If the shad were utilizing the Homochitto River, it would be restricted to the main stem.

Direct Effects – Because the proposed well site is not within the Amite River drainage, no direct effect on the Alabama shad will be possible.

Indirect Effects -- Because the proposed action is not within the Amite River drainage and well away from the main stem of the Homochitto River, no indirect effect on the habitat of the Alabama shad should be possible.

Cumulative Effects -- The cumulative effects should be discountable and therefore are not expected to impact this species.

Because the proposal is well away from both the Amite and Homochitto Rivers (main stems), there will be **"no impact"** on the Alabama shad. The no action will have a **"no impact"** determination as well.

The **crystal darter** is known from the Pascagoula, Pearl, and Tombigbee drainages in the Gulf of Mexico basin and from the Bayou Pierre and Homochitto River systems in the Lower Mississippi drainage. It is represented in the Homochitto River drainage by a single collection in 1973 at the Highway 98 Bridge south of Bude (Ross, Stephen T. Pers. Comm.). Since that time, no other collections of this species have been made from the Homochitto drainage despite surveys relevant to the project area. Crystal darters inhabit clean sand and gravel beds with swiftly flowing water in large rivers. The streams in this project area are too small to be inhabited by this species and therefore are not classified as suitable habitat for this species.

Direct Effects – Because the location of the project area is outside of potential habitat it is expected that there will be no negative direct effects are e expected.

Indirect Effects – Because habitat will not be impacted by the action alternatives, indirect effects are not expected.

Cumulative Effects -- The cumulative effects should be discountable and therefore are not expected to impact this species.

Therefore the project will have **"no impact"** on populations of this species. The no action alternatives will have **"no impact"** on this species.

The **broadstripe topminnow** is found only in the Lake Pontchatrain Drainage and in the Amite and Tangipahoa River systems. Dr. Stephen Ross, fisheries biologist at the University of Southern Mississippi, confirmed that broadstripe topminnows are not considered potential residents of the Homochitto River drainage. Based on this, the proposed well site is outside of potential habitat, therefore this minnow would not be impacted by the proposed gas well.

Direct Effects -- None

Indirect Effects -- None

Cumulative Effects -- The cumulative effects should be discountable and therefore are not expected to impact this species.

Therefore the project will have **"no impact"** on populations of this species. The no action alternatives will have **"no impact"** on this species.

Nymphs and adults of both the **Natchez and chukcho stoneflies** are associated with small, clear, cold, and unpolluted streams. These streams are usually 1-4 meters in width, with full overstory canopy and sandy gravel substrate (Hartfield 1993). They are weak fliers and will usually remain near the water from which they emerge as nymphs. Present surveys seem supportive of Brown and Stark's (1995) suggestion that both species are endemic to southwest Mississippi. Surveys for Natchez and chukcho stoneflies have been conducted in streams of the Homochitto Ranger District. Sixty-six stream sites in the Homochitto National Forest were sampled for adult stoneflies. Natchez stoneflies were found at 23 sites and the Chukcho found at 9 sites. During the spring of 2002, selected streams in Analysis Units 16 and 17 were sampled for these stoneflies using both black light traps and sweep nets. These surveys were conducted between April 15 and April 19 and involved 8 sample sites in Analysis Unit 17 and 3 in Analysis Unit 16. Analysis Unit 17 had recent (FY2000) timber sale activity and Analysis Unit 16 had no recent timber sale activity. One station (157) in Analysis Unit 17 had neither Natchez nor chukcho stoneflies collected. One station in Analysis Unit 16 (153B) and two in Analysis Unit 17 (107L & 155A) had only Natchez stoneflies collected. These four stations were in the upper ends of *their* respective watersheds and were not considered representative stonefly habitat. Seven stations (2 in Analysis Unit 16 and 5 in analysis Unit 17) had both species collected. Despite past efforts at collection, neither stonefly has been collected from stations near the proposed well site.

Direct Effects – Because of the lack of suitable habitat at the well site, there should be no negative direct effects to the stoneflies.

Indirect Effects - Because this species is not known from this area, its habitat should not be impacted. Mitigations should prevent excess sediment from moving off site, however there is a chance that erosion could occur and if the stoneflies were utilizing habitat downstream their habitat could be impacted.

Cumulative Effects -- The cumulative effects should be discountable and therefore are not expected to impact this species.

If sediment did enter stream from development of the well, negative impacts to the stonefly could occur if present downstream of the development. Therefore there could be a may "**impact individuals but will not likely result in a trend towards federal listing or a loss of viability**" determination. The no action alternative will have a "**no impact**" determination.

Although the range of the **rayed creekshell** (*Anodontoides radiatus*) covers portions of five southeastern states (Alabama, Florida, Georgia, Louisiana, and Mississippi) its occurrence is sporadic. Museum records suggest that historically it was seldom collected in large numbers, and today it is unusual to find more than a few individuals at a site. Now this mussel is considered to be of special concern due to reductions in both the number of sites where it historically occurred as well as a decline in the number of individuals found per occurrence (NatureServe Explorer, 2002). Threats to this species include sedimentation as a result of bank destabilization, runoff from agriculture and roads and overall stream modifications. This species is known from large rivers, however, most collections are from small to medium-sized creeks where it occurs in mud, sand, or gravel substrates in slow to medium currents (NatureServe Explorer, 2002). The immature form is parasitic, however species of host fishes are not known.

This species of mussel has not been found on the Homochitto National Forest and it is not known from the Homochitto River, into which most drainages on the Homochitto National Forest flow. However, this species is known to occur in the Amite River watershed, which does include a very small portion of the Homochitto National Forest. This creek, that is part of the Amite Watershed, is not within the project area; therefore, there should be no impacts to the rayed creekshell.

Direct Effects – No direct effects are expected due to the location of this drainage, which is not within the Homochitto Watershed and well away from any proposed activities.

Indirect Effects – No indirect effects are expected. Again, this is due to the location of the proposed project being outside of the Amite River watershed.

Cumulative Effects – Cumulative effects should be discountable and therefore are not expected to affect this species habitat.

Therefore all alternatives will have **"no impact"** on populations of this species.

While **Rafinesque's big-eared bats** may use a variety of habitats for foraging, their distribution is most likely tied to suitable roosting habitat such as abandoned buildings, abandoned mines and wells, beneath concrete road bridges, trees with loose bark, and trees with cavities extending upward from the opening. In general, the high densities of insects that can be found around bodies of water such as streams and ponds makes these very important foraging habitat for this bat species.

In 1991, a colony of Rafinesque's big-eared bats was observed roosting in an abandoned house on a small private inholding of land within the Homochitto National Forest (J.A. Smith, Pers. Comm., 1992b). Because current inventory methods for the Rafinesque's big-eared bat are neither feasible nor effective for determining definitive information on the number and location of individuals, and because the project and all alternatives are expected to have minimal effects, site-specific inventory was not performed. It was assumed that Rafinesque's big-eared bats were or could be present in the study area and the effects of management on the species were analyzed.

Direct Effects – Site survey did not find any trees large enough to provide suitable roost habitat. Therefore there will be no negative direct impact to the bat.

Indirect Effects – Because suitable habitat does not exist at the proposed site, there should be no negative indirect effects to the bat.

Cumulative Effects - The cumulative effects are discountable and therefore are not expected to impact this species.

The No Action Alternative will have **"no impact"** on populations of the species. Because a relatively small percentage of the forest area would be removed under this proposal and those trees were too young to provide suitable habitat, it is determined that the proposed action should have **"no impact"** for the discussed species due to the small percentage of habitat disrupted.

Southeastern Myotis is a small insectivorous bat with short, thick, woolly fur. As its name implies, it lives in the southeastern United States, from coastal North Carolina south into peninsular Florida, west through Louisiana and into eastern Texas and southeastern Arkansas. It also lives along the lower Ohio River Valley in Kentucky, Indiana, and Illinois (natureserve.org, Texas Parks & Wildlife
http://www.tpwd.state.tx.us/nature/wildl/mammals/bats/species/se_myotis.htm).

A large portion of the Southeastern Myotis population apparently occurs in northern Florida in caves. Outside of this region, maternity colonies tend to be smaller and located in hollow trees and other noncave sites. Florida still has large numbers, but a 45-50% decline occurred over the

past 30-40 years (with no sign of abatement) in both numbers of bats and number of major maternity roosts. Although population estimates are of uncertain accuracy; small numbers of known large maternity colonies results in high vulnerability to devastation by large scale disasters such as a regional flood event affecting many caves simultaneously. Better information is needed on trend and on abundance outside of Florida (natureserve.org).

Large numbers of S. myotis congregate and form maternity colonies in caves in Florida and have been reported a few times in buildings. Maternity colonies are also known from one cave in Georgia and one in Alabama. In the rest of the deep south, where there are limited caves, these bats use buildings and other structures, mines, and hollow trees for spring and summer roosts. By winter in this region they roost in small groups in outdoor sites, often over water, such as bridges, culverts, storm sewers, and boat houses, as well as in hollow trees (Barbour and Davis 1969, Humphrey and gore 1992, natureserve.org 2004).

The key characteristics for maternity sites are high humidity and constant warm temperatures. Foraging habitat is riparian floodplain forests or wooded wetlands with permanent open water nearby (MacGregor 1992, Gardner et al. 1992, Humphrey and Gore 1992).

Management requirements include maintaining high quality forested wetlands with component of large hollow trees near permanent water. It is unknown at this time the importance of hollow trees and other non-cave sites as maternity roosts. Threats include improper cave gating or entrance closure, disturbance by humans, flooding and clearcutting around a cave may cause local declines (Gore and Hovis 1992). This species is also threatened by habitat loss. In many areas suitable habitat is being cleared for housing and bottomland hardwood harvested. This species does not tolerate disturbance at roosting sites in the summer (Humphrey and Gore 1992) or winter (natureserve.org 2004).

Direct Effects - Because suitable habitat such as large hollow trees near a permanent water source would not be impacted due to the location of the proposed gas well there should be no direct effect on the Southeastern myotis.

Indirect Effects – Because suitable habitat should not be impacted, there should be no indirect effect on this species.

Cumulative Effects -- The cumulative effects are discountable, therefore not expected to impact this species.

Because the action alternatives will not effect habitat suitable to this species, there will be **"no impact"** on the Southeastern myotis. The No Action Alternative will have **"no impact"** on populations of the species.

The **Arogos skipper** is a small butterfly with a wingspan about 1 to 1 ¼ inches. This species is found only in native grasslands, including prairies, savannahs, and bogs. The butterfly is rare and local in distribution. The larval foodplant is Bluestem grasses in the mid west and northern New Jersey, lopsided indiangrass in Florida, toothache grass along the Gulf Coast, and pine

barrens reedgrass in the Carolinas and southern New Jersey. The adults feed on nectar from flowers such as blazing star, purple vetch, dogbane, stiff Coreopsis, purple coneflower, green milkweed, and ox-eye daisy among others.

There has been a recent concern about the survival of this species and a status survey has been commissioned by the U.S. Fish and Wildlife Survey to determine if listing as an endangered species is appropriate. In the vicinity of the Homochitto, historical collections exist for both Hinds and Copiah counties. Over seven person-days (mid August through mid September) were spent collecting skippers in seemingly suitable habitat on the Homochitto Ranger District in grassy portions of nineteen sections scattered throughout the forest. None of the specimens collected were the Arogos skipper (Marc Minno, Pers. Comm., 2001).

Direct Effects Suitable habitat for this species is not present on site, therefore there could be no negative direct effect to this species if the skipper butterfly larvae is present.

Indirect Effects – Because no potential suitable habitat may be destroyed by the proposed project, there could be negative indirect effects to this species.

Cumulative Effects -- The cumulative effects are discountable and therefore are not expected to impact this species.

Because the Arogos skipper is not confirmed to occur on the Homochitto Ranger District, and because skipper habitat will not be impacted due to this project there is a **"no impact"** determination for this species. The no action alternative would have **"no impact"** on this species.

Trachyxiphium heteroica (a moss) is a slender, green, flaccid, rather shiny moss growing in mats with an interesting, if confusing, distribution. This small moss was for many years considered to be endemic to wet forests on soil and logs at moderate elevations (up to 5500 feet) in the Puebla and Veracruz states of Mexico. It was not known to occur outside of Mexico until August, 1969 when it was collected growing on a wet, rotted log in a spring seep at Clear Springs Recreation Area, Homochitto National Forest. Between 1969 and 2000, it had been collected only two other times in the United States: both from Washington Parish, Louisiana. All currently known collections from the southern United States come from man-made habitats: an artificial lake in Mississippi; and concrete culverts around springs in Louisiana (Crum and Anderson, 1981). In September 2000, a concentrated effort was undertaken to confirm this species continued occurrence on the Homochitto. The original collector was contacted in order to develop a refined search image. Dr. Reese provided valuable information on the specific microhabitat required by this species and a better verbal description of the site of the first collection. It was re-collected from the original location in September 2000. Its current status on the Homochitto is being investigated. Although at least six other spring seeps seemingly suitable have been investigated, the moss has been collected only one other time on the Homochitto. Based on research to date, it seems that this moss is associated with decaying wood in springs and spring seeps. The specific type of seep seems to be of a type that has water flowing year-

round. Current flow is obvious and mosses dominate the lowest level of the ground cover, although there are patches of bare sand and gravel present.

Direct Effects – There are no known occurrences of *Trachyxiphium heteroica* in the vicinity of the project. Potential habitat was not found on the proposed site. Therefore, there should be no negative direct effects to this species.

Indirect Effects – Because spring seeps and other wetland types will not be affected due to the proposed project, there should be no indirect effects on *Trachyxiphium heteroica*.

Cumulative Effects -- The cumulative effects are discountable and therefore are not expected to impact this species.

The proposed action will avoid all wetlands and known locations are given optimal protection there should be **"no impact"** on the discussed species for both alternatives.

The **cypress-knee sedge** is an aquatic sedge that is usually associated with cypress trees, logs, or knees. It occurs in areas of permanently flooded cypress timber. Frequently the cypress-knee sedge may occur on floating or partially submerged rotting logs or stumps and may form dense tussocks. It has been found in all light conditions from full sun to dense canopy. Associated species may include: baldcypress (*Taxodium distichium*), swamp black gum (*Nyssa biflora*), red maple (*Acer rubrum*), possum haw (*Viburnum nudum*), buttonbush (*Cephalanthus occidentalis*), bogmoss (*Mayaca fluviatilis*), marsh St.-John's-wort (*Triadenum walteri)*, cinnamon fern (*Osmunda cinnamomea*), royal fern (*Osmunda regalis* ssp, *spectabilis*), and netted chain-fern (*Woodwardia areolata*). The present distribution of cypress-knee sedge is poorly understood partially because of the inaccessible nature of the habitat and the generally inhospitable nature of southern swamps in mid-summer (snakes and mosquitoes) (Bryson, Charles. 2001, pers comm.). The cypress-knee sedge has been collected from at least four sites on the Homochitto RD and with additional surveys new sites will undoubtedly be added.

Direct Effects – Because neither the species nor suitable habitat is found within or adjacent to the proposed gas well site, no negative direct impacts to the cypress-knee sedge is likely. All known locations are protected from management activities.

Indirect Effects -- Direct Effects – Because neither the species nor suitable habitat is found within or adjacent to the proposed gas well site, no indirect impacts to the cypress-knee sedge is likely.

Cumulative Effects -- Known occurrences of this species have been given optimal protection and suitable habitats generally remain undisturbed. Therefore, cumulative effects should be discountable and are not expected to impact this species.

Because the proposed action will not impact this species or its habitat there should be **"no impact"** on the discussed species for either alternative.

The **Small's wood fern** (*Dryopteris x australis)* occurs in moist to wet woodlands (shaded seeps and bald cypress swamps) comprised of several species of deciduous hardwoods and sweetbay, sometimes with baldcypress and dwarf palm. Associates include: sweetgum, swamp black gum, tulip poplar, loblolly pine, cinnamon fern, royal fern, lizard's tail, poison sumac, American holly, red maple, switchcane, and netted chain fern. This species is known to occur on the Homochitto Ranger District but not in the planning unit and an extensive survey to locate additional populations in seemingly suitable habitat on the forest has been conducted without additional populations being located (J.A. Smith, 1995). No populations of this species were located during site surveys in 1998 and 2001. No management activities are planned for areas of seemingly suitable habitat. All known locations of this species are protected.

Direct Effects – Because no management activities will take place within suitable habitat and because no individual plants were found during field surveys, no direct effects are expected.

Indirect Effects – Because suitable habitat will not be impacted by this project there should be no negative indirect effects on this species.

Cumulative Effects -- Known occurrences of this species have been given optimal protection and suitable habitats generally remain undisturbed. Therefore, cumulative effects should be discountable and are not expected to impact this species.

All alternatives should have **"no impact"** for the discussed species.

The **bay starvine** (*Schisandra glabra)* may be locally abundant on steep slopes beneath deciduous hardwoods (beech-magnolia) and occasional pines, usually midslope or lower, and less commonly found on floodplains along the bases of mixed hardwood slopes. Associates: American beech, spruce pine, shortleaf pine, white oak, Darlington oak, hophornbeam, southern magnolia, bigleaf magnolia, pyramid magnolia, cucumber tree, sourwood, tulip poplar, sweetgum, horse-sugar, American holly, florida anise, sebastian-bush, Elliotts blueberry, sliky camelia, witch hazel, wild ginger, partridge-berry, melic grass, variable panic grass, narrow-leaf sedge, hirsute sedge, striate sedge, and christmas fern. The recommended management is to maintain a forest cover with as little disturbance as possible, avoid clear-cuts and thinnings, protect from fire, and minimize or restrict vehicular traffic. Due to the steep nature of the microhabitat, erosion is a constant threat, especially if thinning or harvest activities on the ridgetops are conducted in a careless manner.

Direct Effects – Because this site was converted to a loblolly pine plantation in the 70,s, it is no longer suitable habitat for the bay starvine. No occurrence of this species was found during the site visit and the habitat is all wrong for this species

Indirect Effects – The amount of disturbance is small and contained to the well pad site which contains no suitable habitat, therefore no indirect effects on this species are anticipated.

Cumulative Effects - This species is typically surveyed for in areas to reduce risk in order to lessen impact on individuals. However, other known occurrences of this species have been given

protection and suitable habitats generally remain undisturbed. Therefore, cumulative effects should be discountable and are not expected to impact this species.

Therefore, the proposed action will have **"no impact"**for the discussed species. The no action alternative will have **"no impact"** on this species.

Carolina fluffgrass (*Tridens carolinianus*) is a native grass endemic to the Southeastern Coastal Plain and is considered rare. Like most grasses, Carolina fluffgrass is easily overlooked and underreported. In a 2002 survey of three compartments on the Chickasawhay Ranger District, a total of twenty-six new populations were found, twenty-one within the contracted area (Gulf Coast Biological Surveys, Inc.). In a wide ranging survey of the vascular plants of the Homochitto Ranger District, two populations were found by Chris Havran. Since Chris made no effort to maximize the number of records for this species and because of the ease with which new populations were found on the Chickasawhay Ranger District, it is certain that more populations on the Homochitto remain unreported.

The habitat reported for Carolina fluffgrass is grassy openings in well-drained pine-oak forests, typically old growth stands, mostly longleaf pine though occasionally in loblolly pine successional woodlands or in slash pine plantations. Oak species reported include southern red oak, blackjack oak, black oak, and less frequently water oak and bluejack oak. Groundcover is reported as diverse with bluestems, goldenrods, *Paspalums*, panic grasses, and asters to name only a few (Gulf Coast Biological Surveys, Inc.).

Carolina fluffgrass is a species of grassy openings in older pineland timber and seems to thrive best where soil disturbance has occurred: in old, overgrown firebreaks, in skidder trails, along woods roads, beneath red-cockaded woodpecker cavity trees where the undergrowth has been removed, old windrows, and other such areas of disturbance. The plants appear to respond well to fire, but not to shrub encroachment. Most colonies receive a few hours of direct sunlight (Gulf Coast Biological Surveys, Inc.).

Direct Effects – The small project area was surveyed and no occurrence or suitable habitat was found

Indirect Effects – The footprint of this project would not support this species for the foreseeable future, but there is no occurrence at the present time.

Cumulative Effects - The proposed project does not contribute to other unconnected actions within the forest to create unacceptable levels of negative cumulative impacts.

Because no individual plants or habitats were found to be present, it is my determination that the proposed action will have "**no impact**" for the discussed species. The no action alternative will have "**no impact**" on this species.

The **fetid trillium** (*Trillium foetidissimum)* has a wide range of reported habitat preferences: ravines, floodplains, low ground, in rich woods, in silts, sandy-alluvium, and loess soils. It is

often locally abundant in rich soils on steep slopes in the shade of mixed pine-hardwoods and less commonly on low ridges, in well drained soils. The fetid trillium also occurs in floodplains in mixed hardwood forests. Associates may include: shortleaf pine, loblolly pine, longleaf pine, spruce pine, American beech, white oak, tulip poplar, bigleaf magnolia, pyramid magnolia, sourwood, flowering dogwood, witch hazel, American holly, red maple, Florida anise, Elliotts blueberry, wild azalea, partridge-berry, long-leaf spikegrass, and yellow jessamine, green-dragon, jack-in-the-pulpit, wild sweet William.

The species seems tolerant of a wide range of soil moisture and soil types from low swampy woods to high, dry bluffs and ravine slopes. Fetid trillium was found by J. A. Smith "on all sites that I have covered during my endangered plant survey" (J.A. Smith, Pers. Comm., 1992a). They are considered widespread on the Forest and were found in limited number during the site visit (>10 total plants seen)

Direct Effects – Development of gas well may result in the loss of individual plants, although this is a small project in less than ideal habitat.

Indirect Effects -- The no action alternative is anticipated to result in very minor change of habitat suitability for the fetid trillium. Because streamside zones are the optimal habitat for this species and the proposed project is situated on uplands, the trillium is not likely to be severely disturbed.

Cumulative Effects - Cumulative effects should be discountable and are not expected to impact this species.

The action alternatives **"may impact individuals but will not likely result in a trend towards federal listing or a loss of viability"** for the discussed species. The no action alternative will have **"no impact"** on this species.

The **ravine sedge (Carex impressinervia)** is a perennial sedge of the interior mesic deciduous forests of the Southeastern United States. The sites of the extant populations have been described as relatively open, mesic deciduous forests along small streams in ravines. Topographically, the areas are hilly and deeply dissected by streams that have created sheltered ravines. Hilltops support dryish pine forests and ravines harbor mesic deciduous forest. Within these ravines, the ravine sedge, occurs in the forest interior on floodplains or up adjacent slopes, but it is most common high in the floodplain and low on slopes at the transition between floodplain and slope. It may prefer small, narrow terraces in the bottoms where soil from the adjacent slope has fallen into the floodplain, thus creating a microhabitiat just above the surrounding floodplain.

Ravine sedge survives only in local populations in a stable habitat, the interior of mesic deciduous forests in sheltered ravines in hilly regions. It grows with few other herbs and shrubs which implies that it is a poor competitor. It is apparently very rare and local, with most of the plants in a population concentrated into a small area. It requires habitats that are uncommon, sheltered mesic deciduous forests with low shrub and herb species diversity. The most serious threat to this species on National Forest land is logging, particularly through clear-cutting. This activity could compact soil, increase light levels, and drastically alter moisture regimes at the

microhabitat level, making the habitats unsuitable for the ravine sedge. If logging did not directly impact this species, sediment from erosion and the spread of exotics could displace the sedge from its habitats.

Direct Effects – Species were not found during site inventory, therefore there should be no negative direct effect to this species.

Indirect Effects – Suitable habitat was not found during the site visit. Because suitable habitat should not be impacted there should be no negative indirect effects to this species.

Cumulative Effects - Known occurrences of this species have been given optimal protection and suitable habitats generally remain undisturbed. Therefore, cumulative effects should be discountable and are not expected to impact this species.

Therefore, the proposed action should have **"no impact"** for the discussed species. The no action alternative will have **"no impact"** on this species.

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APPENDIX 1.

Threatened and Endangered Species
National Forests in Mississippi
4 April 2006*

Group	Scientific Name	Common Name	Federal Status	TNC Global	TNC State	Possibility of Occurrence on Homochitto NF
Amphibian	Rana capito sevosa	Mississippi Gopher Frog	E	G1	S1	Outside known range/no suitable habitat
Bird	Grus canadensis pulla	Mississippi Sandhill Crane	E	G5T1	S1	Outside known range/no suitable habitat
Bird	Picoides borealis	Red-Cockaded Woodpecker	E	G3	S1	Confirmed
Fish	Acipenser oxyrhynchus desotoi	Gulf Sturgeon	T	G3T1T2	S1B/S1N	Outside known range/no suitable habitat
Fish	Percina aurora	Pearl Darter	C	G1	S1	Outside known range/no suitable habitat
Fish	Scaphirhynchus albus	Pallid Sturgeon	E	G1G2	S1	Outside known range
Invertebrate	Fallicambarus gordoni	Camp Shelby Burrowing Crawfish	C	G1	S1	Outside known range/no suitable habitat
Invertebrate	Pleurobema decisum	Southern Clubshell	E	G1G2	S1/S2	Outside known range
Mammal	Ursus americanus luteolus	Louisiana Black Bear	T	G5T2	S1	Potential
Plant	Apios priceana	Price's Potato Bean	T	G2	S1	Outside known range/no suitable habitat
Plant	Isoetes louisianensis	Louisiana Quillwort	E	G1	S1	Outside known range
Plant	Lindera melissifolia	Pondberry	E	G2	S2	Outside known range
Reptile	Drymarchon corais couperi	Eastern Indigo Snake	T	G4T3	S1	Outside known range/no suitable habitat
Reptile	Gopherus polyphemus	Gopher Tortoise	T	G3	S2	Outside known range/no suitable habitat
Reptile	Pituophis melanoleucus lodingi	Black Pine Snake	C	G4T3	S2	Outside known range/no suitable habitat

* Bald eagle was removed 8 August 2007 as a Threatened Species by action of USDI F&WS and added the same day to Regional Forester's list of Sensitive Species

APPENDIX 2.
Forest Service Sensitive Species
National Forest in Mississippi
7 August 2001

Group	Scientific Name	Common Name	TNC Global	TNC State	Possibility of occurrence on Homochitto NF
Amphibian	Plethodon websteri	Webster's salamander	G3	S3	Outside of known range / Suitable Habitat Present
Bird	*Aimophila aestivalis*	Bachman's sparrow	G3	S3?	Confirmed Present
Bird	*Haliaeetus leucocephalus*	Bald Eagle	G4	S1B/S1N	Confirmed Present
Crustacean	*Fallicambarus danielae*	Speckled burrowing crayfish	G2	S2	Outside of known range / No Suitable Habitat
Crustacean	*Fallicambaarus gordoni*	Camp Shelby burrowing crayfish	G1	S1	Outside of known range / No Suitable Habitat
Crustacean	*Hobbseus attenuatus*	Pearl Rivulet crayfish	G2	S2	Outside of known range / No Suitable Habitat
Crustacean	*Procambarus barbiger*	Jackson Prairie crayfish	G2	S2	Outside of known range / No Suitable Habitat
Crustacean	*Procambarus fitzpatricki*	Spiny-tailed crayfish	G2	S2	Outside of known range / No Suitable Habitat
Crustacean	*Procambarus penni*	Pearl blackwater crayfish	G3	S3	Confirmed Present
Fish	*Alosa alabamae*	Alabama shad	G3	S1	Potential / At extreme periphery of range / No Suitable Habitat
Fish	*Crystallaria asprella*	Crystal Darter	G3	S2	Potential / No Suitable Habitat
Fish	*Etheostoma raneyi*	Yazoo darter	G2	S2?	Outside of known range / No Suitable Habitat
Fish	*Fundulus euryzonus*	Broadstripe Topminnow	G2	S2	Potential / At extreme periphery of range/ No Suitable Habitat
Fish	*Notropis melanostomus*	Blackmouth shiner	G2	S2	Outside of known range / No Suitable Habitat
Fish	*Noturus munitus*	Frecklebelly madtom	G3	S2	Outside of known range
Fish	*Noturus stigmosus*	Northern madtom	G3	S1	Outside of known range
Fish	*Percina lenticula*	Freckled darter	G2	S2	Outside of known range / No Suitable Habitat

Insect	*Alloperla natchez*	Natchez stonefly	G2	S2	Confirmed Present
Insect	*Atrytone arogos arogos*	Arogos skipper	G3G4 T1T2	S2S3	Possible / Habitat possibly suitable
Insect	*Haploperla chukcho*	Chukcho stonefly	G2	S2	Confirmed Present
Mammal	*Corynorhinus rafinesquii*	Rafinesque's big-eared bat	G3G4	S3?	Confirmed Present
Mammal	*Myotis austroriparius*	Southeastern myotis	G3G4	S1S2	Presence Possible
Mollusk	*Anodontoides radiatus*	Rayed creekshell	G3	S2	Outside of known range / No Suitable Habitat
Mollusk	*Elliptio arca*	Alabama spike	G3Q	S3	Outside of known range
Mollusk	*Obovaria unicolor*	Alabama hickorynut	G3	S3	Outside of known range
Mollusk	*Plethobasus cyphyus*	Sheepnose	G3	S1	Outside of known range
Mollusk	*Pleurobema beadleianum*	Mississippi pigtoe	G2G3	S3?	Outside of known range / No Suitable Habitat
Mollusk	Pleurobema rubrum	Pyramid pigtoe	G2	S1	Outside of known range / No Suitable Habitat
Mollusk	*Quadrula cylindrica*	Rabbitsfoot	G3T3	S1	Outside of known range
Mollusk	*Strophitus subvexus*	Southern Creek Mussel	G3	S2	Outside of known range
Reptile	*Pituophis melanoleucus lodingi*	Black pine snake	G4T3	S2S3	Outside of known range / No Suitable Habitat
Non-Vascular Plant	*Trachyxiphium heteroicum*	Trachyxiphium moss	G2G3	S1	Confirmed Present
Vascular Plant	*Agalinis pseudaphylla*	Shinner's false foxglove	G2?Q	S2	Outside of known range / No Suitable Habitat
Vascular Plant	*Agrimonia incisa*	Incised agrimony	G3	S3S4	Outside of known range / No Suitable Habitat
Vascular Plant	*Amsonia ludoviciana*	Louisiana bluestar	G3	SH	Outside of known range
Vascular Plant	*Arabis patens*	Spreading rockcress	G3	S1	Outside of known range / No Suitable Habitat
Vascular Plant	*Aristida simpliciflora*	Southern three-awn grass	G2	S1	Outside of known range / No Suitable Habitat
Vascular Plant	*Botrychium jenmanii*	Dixie grapefern	G3G4	S1?	Outside of known range / Suitable Habitat Present
Vascular Plant	*Calopogon multiflorus*	Many-flower grass pink	G2G3	S1	Outside of known range / No Suitable Habitat
Vascular Plant	*Carex baltzellii*	Baltzell's sedge	G3	S1	Outside of known range / No Suitable Habitat

Appendix 3

STATUS CODES

Federal Status

E - Endangered
T - Threatened
S - Forest Service Sensitive

State Ranks

S1 - Critically imperiled in state because of extreme rarity (very few individuals or acres) or because of some factors making it especially vulnerable to extinction.
S2 - Imperiled in state because of rarity or because of some factor(s) making it especially vulnerable to extinction.
S3 - Rare or uncommon within state.

LEGAL NOTICE
Request for Comments
National Forests in Mississippi
Homochitto National Forest
Franklin County, MS

Homochitto 25-3 #3

The USDA Forest Service is evaluating a proposal from Stroud Petroleum Inc. to drill a well and conduct testing to see if this project is commercially productive on Federal Lease BLM-A-047559. The drill site is located in Section 25, T6N, R2E (2.5 miles east of Roxie, MS, off US Hwy. 84). Activities associated with this proposal may include commercial timber removal on 3+/- acres, improving the access road, drilling a water well and a production well and laying of a pipeline along the access road. If no oil or gas is found or if at a later date, the well is no longer commercially productive; it will be plugged and the site restored. Time from start to finish of the project would be approximately 90 days. A producing well would have a life expectancy of approximately 15 years, after which the site would be restored.

We are asking for your input on this proposal. In the absence of extraordinary circumstances, these activities may be categorically excluded from evaluation in an Environmental Analysis or Environmental Impact Statement under 36 CFR 220.6(e)(17), Approval of a Surface Use Plan of Operations for oil and natural gas exploration. To ensure consideration in the decision your input must be received within 30 days following the publication of this legal notice. Comments should be sent to: Margrett Boley, Forest Supervisor and Responsible Official, at one of the following designated addresses:

(1) for written comments, mail to: c/o District Ranger, Homochitto Ranger District, 1200 Hwy 84 East, Meadville, MS 39653; or e-mail to: comments-southern-mississippi-homochitto@fs.fed.us (Responses mailed electronically should be in a common digital format.);

(2) written comments may be hand delivery to - District Ranger, Homochitto Ranger District, 1200 Hwy 84 East, Meadville, MS 39653, 8:00 A.M. to 4:30 P.M. Monday - Friday, except for federal holidays. Oral comments will be also accepted at this location.

(3) Comments may be submitted by telephone (601-384-5876) or fax (601-384-5930).

October 19, 2014

Mr. Ken Carleton
Tribal Historic Preservation Officer
Mississippi Band of Choctaw Indians
PO Box 6010
Philadelphia, Mississippi 39250

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Tribal Historic Preservation Officer
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Mr. Greg Williamson
Review and Compliance Officer
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PO Box 571
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Mr. Everett Bandy
Tribal Historic Preservation Officer
Quapaw Tribe of Oklahoma
PO Box 765
Quapaw, OK 74363

United States Department of Agriculture | Forest Service | National Forests In Mississippi Homochitto Ranger District | 1200 Hwy 184 East Meadville, MS 39653 601/384-5876/TTY601/384-8056

File Code: 2360
Date: 10/14/2014

Greg Williamson
Review and Compliance Officer
Mississippi Dept. of Archives and History
PO Box 571
Jackson, MS 39205

Dear Mr. Williamson,

Please find enclosed the scoping/comment letter and map for a newly proposed oil/gas well, the Homochitto 25-3 #3 on the Homochitto Ranger District, National Forests in Mississippi, Franklin County, Mississippi.

This area has had previous archeological surveys and has no known sites to this date. A new third party survey and subsequent report will be completed by an archeologist that is on the list provided by the Mississippi State Historical Preservation Officer. Once completed, a report will be mail for consultation to tribes and SHPO.

We look forward to your comments and concurrence of the proposed activities.

Should you have any questions or concerns regarding the survey and report, please contact Brenda Reed at 601-965-1607 or brendalreed@fs.fed.us. Feel free to contact Carrie Beard with questions about the proposed project. 601-384-2814 x223 or cabeard@fs.fed.us

Sincerely,

/s/ Bruce Prud'homme
BRUCE PRUD'HOMME
District Ranger

enclosures

United States Department of Agriculture | Forest Service | National Forests In Mississippi Homochitto Ranger District | 1200 Hwy 184 East Meadville, MS 39653 601/384-5876/TTY601/384-8056

File Code: 1950/2820
Date: 10/14/2014

Dear Interested Public

The Homochitto District has received a proposal from Stroud Petroleum Inc. to drill an oil/gas well and conduct testing to see if this project is commercially productive on Federal Lease BLM-A-047559. Drill site location is in Section 25, of Township 6 North, Range 2 East, Franklin County (see enclosed map). An old logging road would be improved for about 300+/- feet. If this well produces in commercial quantities, a tank battery/production facility would be placed at the well location. The access road and that part of the location needed for continued operations will be surfaced with gravel. A pipeline, +/-2800 feet, would be installed along and within the access road and to the north east from the end of Forest Service Road 185 to an old logging road that leads to the Homochitto 13-13 #1 location. Total acreage expected to be disturbed is approximately 3.0 acres.

The Homochitto 25-3 #3 project would consist of the following types of field activities: 1) removal of timber through a commercial timber sale/settlement, 2) clearing of stumps and slash, 3) stock piling available topsoil prior to dirt work to level the pad site, 4) drilling of a water well or temporarily piping water from 25-5#2 well, 5) moving in a drilling rig to evaluate the well for oil/gas production potential 6) improvement of the access road and 7) installing additional pipeline from 25-3 #3 well to the 13-13 #1 location (see map). If no oil or gas is found or if at a later date, the well is no longer commercially productive; it will be plugged and the site restored. Time from start to finish of the project would be approximately 90 days. A producing well would have a life expectancy of approximately 15 years.

We are asking for your input on this proposal. In the absence of extraordinary circumstances, these activities may be categorically excluded from evaluation in an Environmental Analysis or Environmental Impact Statement under 36 CFR 220.6(e)(17), Approval of a Surface Use Plan of Operations for oil and natural gas exploration. To ensure consideration in the decision your input, we ask that you submit your comments or concerns within 30 days following the publication of the legal notice in the paper of record. This period will be the only input/comment opportunity offered on this project. It is intended to provide those interested in or affected by this proposal an opportunity to make their concerns known before the Responsible Official makes a decision. Each individual or representative from each organization submitting comments must either sign the comments or verify identity upon request. Please note, in accordance with regulations, all responses received will be placed in the project file and will become a matter of public record.

Input should be sent to: Margrett Boley, Forest Supervisor and Responsible Official, at one of the following designated addresses:

(1) for written comments, mail to: c/o District Ranger, Homochitto Ranger District, 1200 Hwy 84 East, Meadville, MS 39653; or e-mail to: comments-southern-mississippi-homochitto@fs.fed.us (Responses mailed electronically should be in a common digital format.);

(2) written comments may be hand delivery to - District Ranger, Homochitto Ranger District, 1200 Hwy 84 East, Meadville, MS 39653, 8:00 A.M. to 4:30 P.M. Monday - Friday, except for federal holidays. Oral comments will be also accepted at this location.

(3) Comments may be submitted by telephone (601-384-5876) or fax (601-384-5930). Additional information may be obtained at this address or requested by telephone at 601-384-5876

Sincerely,

/s/Bruce Prud'homme
BRUCE PRUD'HOMME
District Ranger

enclosures

Interested Parties List:

Mr_ or_ Mrs	FirstName	MI	LastName	Title	Company	Address	City	State	Zip
Mr.	Dennis		Riecke	Environmental Coordinator	MDWFP	1505 Eastover Dr.	Jackson,	MS	39211-6374
Mr.	Lynn		Corbitt		U. S. Forest Service	100 W. Capitol Street Suite 1141	Jackson,	MS	39269
Mr.	Charles		Chapman			1410 Lucien Rd. N. N.E.	Brookhaven,	MS	39601
Mr.	Gary		Forman			6065 Oxford Meadville Rd.	Gloster,	MS	39638
					Mississippi Wildlife Federation	517 Cobblestone Court, Suite 2	Madison,	MS	39110
Mr.	A.	J.	Smith	Caston Creek Area Manager	MS Dept. of Wildlife, Fisheries and Parks	4842 McNair Rd. NW	Roxie,	MS	39661

25-3 #3 Adjoining landowners

First Name	Last Name	Company Name	Address Line 1	City	State	ZIP Code
Frances	Leist		10405 Hwy 84 W	Roxie	MS	39661
Carolyn	Freeman		10405 Hwy 84 W	Roxie	MS	39661
		Murray Seab Prop. LLC	PO Box 72	Washington	MS	39190
Bertin	Burge		509 Demontluzin Ave	Bay Saint Louis	MS	39520
Paul	Green		301 Hwy 61S	Natchez	MS	39120
Robert J.	Paul		PO Box 4312	Pineville	LA	73161
Steve	Schexnyder		PO Box 4312	Pineville	LA	73161
Gerald and Ricky	Hill		5216 Hwy 84 W	Meadville	MS	39653
Charlotte	Miller	Plum Creek	PO Box 717	Crossett	AR	71635

Surface Use Plan of Operations for
Roxie Field Development Project
Section 25, T6N-R2E
Franklin County, MS

Proposed New Oil Well: Homochitto 25-3 No. 3
See Attached Well Location Plat with Unit Outline

To date, Stroud Petroleum, Inc. has drilled four oil wells in the Tuscaloosa Formation in Roxie Field. The Seab-USA 12-16 No. 1, located in Section 12, T6N-R2E of Franklin County, MS was brought on line in February of 2013. The Homochitto 13-13 No. 1, located in Section 13, T6N-R2E of Franklin County, MS was brought on line in late October of 2013. The Seab-USA 12-15 No. 2 located in Section 12, T6N-R2E of Franklin County, MS was brought on line in February of 2014. The Homochitto 25-5 No. 2, located in Section 25, T6N-R2E reached total depth in August of 2014 and is currently shut-in until production facilities are constructed. Plans for field development include drilling the Homochitto 25-3 No. 3 on Forest Service property. The results of this well will help determine the size of the oil accumulation and the surface area that it underlies. We are hopeful that the Homochitto 25-3 No. 3 is an economic success; however, the risk is substantial. The plan, as outlined below, is our proposal to most effectively and efficiently develop the reservoir and create the smallest footprint possible.

Existing Roads: From Roxie (city limit) along Hwy. 84 East go 2.1 miles to Zion Hill Road on right. On Zion Hill Road go 0.5 miles to Forest Service Road 190A on the left. Proceed .5 miles south on 190A to Forest Service Road 185 on the left. Take Forest Service Road 185 to its termination at a turnaround area. From the turnaround area take a right turn on an oilfield road approximately 300' long to the location of the proposed Stroud Petroleum, Inc. Homochitto 25-3 No. 3 well location.

Access Roads to be Constructed: From the edge of the Stroud Petroleum, Inc. Homochitto 25-3 No. 3 pad, approximately 300 feet of access road will be constructed. See the attached *Map of Access Road.* This road will then be tied into Forest Service Road 185. The plat labeled as *Proposed Topographical Map* identifies the existing roads as well as the access road to be constructed and the pipeline right of way. The 300 feet of access road will be improved to allow for transportation of all drilling equipment required for the operation. When the well is plugged and abandoned the improved road will be restored to as close to original conditions as practical. If the well is completed as a producer, then the access road will be converted to an all weather oilfield road. The pipeline right of way (ROW) will follow the access road to Forest Service Road 185.

Construction Materials: If needed, construction materials will consist of rock, gravel and fill dirt to supplement the access roads and surface locations. These materials will be transported to the location from private offsite sources.

Well Site Layout: The equipment required on the location will include a drilling rig, mud tanks and associated support equipment. A *Map of Proposed Facility Site* along with a *Map of Proposed Facility Site Cross Sections* has been prepared and included. The location will include a reserve pit, turnaround area, parking area and office/temporary housing facilities. A *Typical Rotary Rig Facility Site* diagram along with a *Map of Proposed Reserve Pit & Mud Pit Typical*

Sections is included. Production operations will require two steel stock tanks, one saltwater tank, heater treater, and pumping unit.

Water Supply: Water that is necessary for drilling operations will either come from a temporary fresh-water well drilled on the pad or from an existing water well that was drilled on the Homochitto 25-5 No. 2 location. At the conclusion of completion or drilling abandonment operations, the temporary water well will be plugged and abandoned according to standard industry practices and government regulations.

If a new water well is drilled, a baseline sample of water will be taken from the water supply well and a final sample collected just prior to plugging. These samples will be sent to a State and/or EPA Certified lab and tested for presence/levels of: PH, chloride, sodium, sulfate, total dissolved solids (TDS), total suspended solids, alkalinity, bromide, calcium, metals, volatile organic compounds (VOC), benzene, ethyl benzene, toluene, methane, and carbon tetrachloride. The results of the samples will be reported to the Forest Officer.

Ancillary Facilities: Other than temporary industry standard portable office/housing trailers, there will be no ancillary camps, buildings, or airstrips utilized or constructed on the site. Temporary housing/work trailers will be removed from project location at conclusion of drilling operations.

Location of Production Facilities For an Oilwell: In an effort to minimize impact, the production facilities (tank battery, separators, heater treaters, etc) for the new well will be located on the facility site in an area of approximately 300' x 300'. This portion of the site will be opposite of the location of the reserve pit utilized during the drilling of the well and proximal to the access road. The facility will include one 6' X 20' heater treater, two 400 barrel stock tanks and one 400 barrel water tank and associated valves and piping.

Produced water will be transported via 3-inch pipeline buried 3 feet below the surface along the access/right of way route to a saltwater disposal well (SWDW) off of Homochitto Forest property. Produced water accumulated prior to completion of the SWDW will be trucked off site for disposal.

Methods for Handling Waste: Drilling fluids and cuttings contained within the reserve pit will be products of the drilling operation. These contents will be analyzed by a State and/or EPA certified lab and disposal will meet all State Oil and Gas Board standards. Surface pipe (8- 5/8") will be set through the USDW depth as outlined in the **Casing Program** section that will be submitted to the BLM. In the event that the well is not completed and a decision is made to *plug and abandon*, then the pit contents will be pumped back into the wellbore or a combination of lime and fly ash or sawdust will be added to the pit contents for soil drying and stabilization. Once drying and stabilization are achieved, the pit will be covered and the grade restored to as close to original conditions as practical. In the event that the well is completed as a producer, then a combination of lime and fly ash or sawdust will be added to the pit contents for soil drying and stabilization. Once drying and stabilization are achieved, the pit will be covered and the grade restored. Waste paper, garbage, and general debris will be disposed of into designated containers on the site and removed regularly during the operations and permanently at the end of operations into an approved land fill site. All waste containers will be

covered to prevent scattering by weather and animals. Current laws and regulations pertaining to the disposal of human wastes will be observed and temporary port-a-lets will be utilized.

Plan for Surface Reclamation: Following completion of all operations and subsequent plugging and abandonment of the well, the surface location will be restored in accordance with the U.S. Forest Service requirements. The well will be abandoned in accordance with the rules and regulations of the Mississippi State Oil and Gas Board. All surface equipment will be removed. The location site will be restored as close to pre-operation conditions as practical and will be ready for planting.

Operator: The operator of the well during drilling, completion, and production will be Stroud Petroleum, Inc., an approved operator with the Mississippi State Oil and Gas Board.

J K S
ENGINEERS
SURVEYING

JORDAN, KAISER & SESSIONS, LLC
279 LOWER WOODVILLE ROAD, NATCHEZ, MS 39120
601.442.3628 fax 601.442.5511
www.jksllc.com

WELL LOCATION - FIELD REPORT

September 26, 2014

RE: Stroud Petroleum, Inc.
Homochitto 25-3 No. 3
Section 25, T6N-R2E
Franklin County, Mississippi

CONDITION OF SITE: The condition of site is poor; on top of wooded ridge; 40' drop from road access 300' away.

GROUND ELEVATION AT STAKED LOCATION: 353.01' NGVD (Before Grading)

PERSONS PRESENT AT STAKING:

DIRECTIONS TO LOCATION:
From the intersection of U. S. Hwy. 84 and Zion Hill Road, go southwesterly on Zion Hill Road for 0.5 miles to F. S. 190A gravel road on left (South). Take F. S. 190A for 0.5 miles to F. S. 185 gravel road on left (East). Take F. S. 185 for 1.1 miles to gravel turn-around. Take ridge to southeast for ± 300 feet to site.

REMARKS: Perimeter is flagged in pink. Slope stakes flagged in blue.

Please advise when we may be of further service.

Thanks,
Malcolm

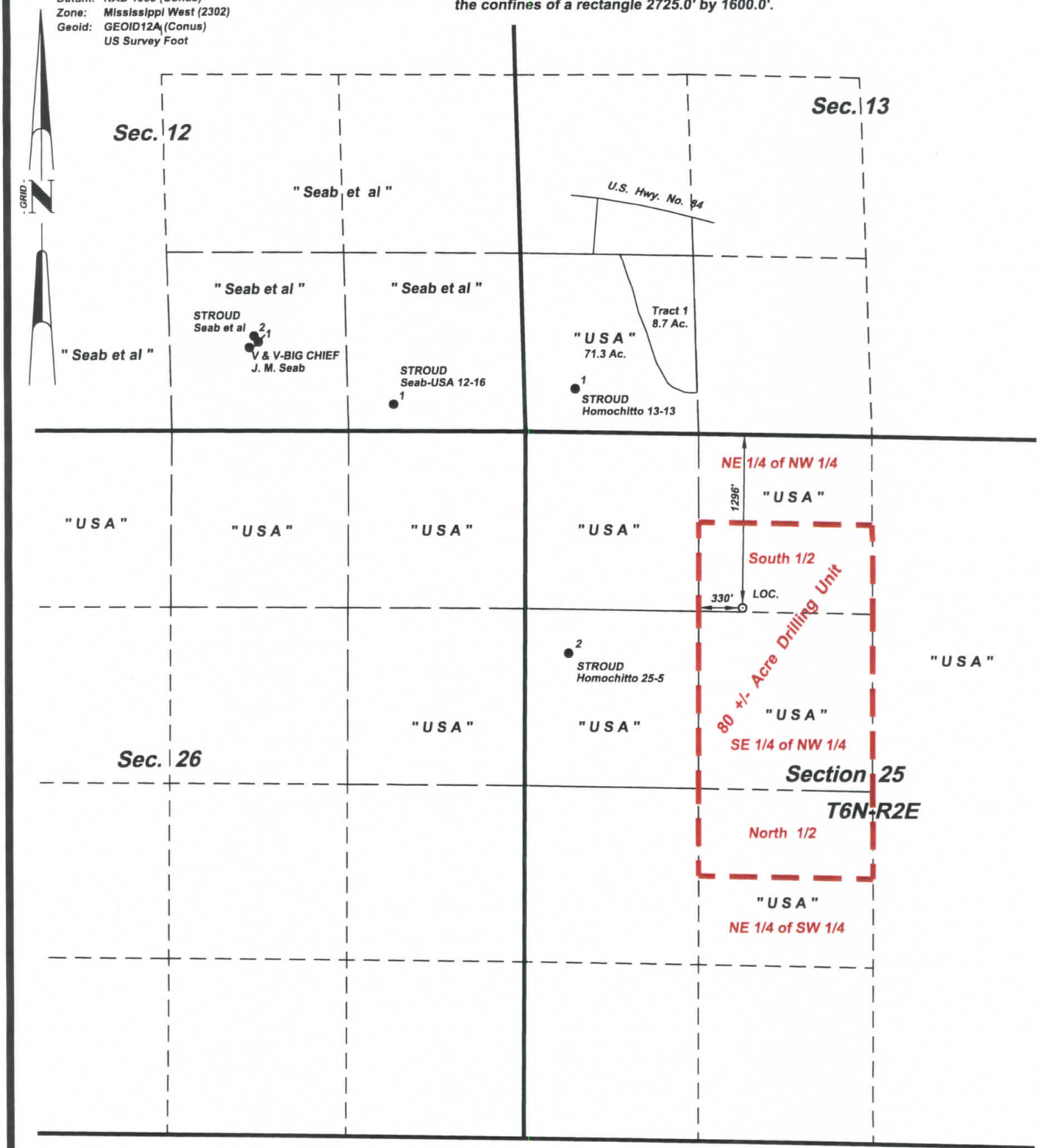
Project No: S1409011

Bk/Pg: 1445 / 10

Orientation derived from GulfNET RTN:
Datum: NAD 1983 (Conus)
Zone: Mississippi West (2302)
Geoid: GEOID12A (Conus)
US Survey Foot

The drilling unit shown hereon lies totally within the confines of a rectangle 2725.0' by 1600.0'.

Bk. 1454/10



DESCRIPTION OF LOCATION: 330 feet from the west line and 1296 feet from the north line of the northeast one quarter of the northwest one quarter, (NE 1/4 of the NW 1/4), of Section 25, T6N-R2E, Franklin County, Mississippi.

DESCRIPTION OF DRILLING UNIT: south one half (S 1/2) of the northeast one quarter of the northwest one quarter, (NE 1/4 of the NW 1/4), the southeast one quarter of the northwest one quarter, (SE 1/4 of the NW 1/4), and the north one half (N 1/2), of the northeast one quarter of the southwest one quarter, (NE 1/4 of the SW 1/4) of Section 25, T6N-R2E, Franklin County, Mississippi, containing 80 Acres more or less.

GROUND ELEVATION at Staked Location: 353.0 NAVD88 (Before Grading)
(NAD '83) Geodetic Position of Location: LATITUDE = 31.49008° and LONGITUDE = 91.01967°

Malcolm G. Barlow
Malcolm G. Barlow, Reg. P.L.S. #1499
September 25, 2014

MALCOLM G. BARLOW REGISTERED LAND 1499 SURVEYOR STATE OF MISSISSIPPI

Well Location For

STROUD PETROLEUM, INC.

Homochitto 25-3 No. 3

Situated In

Section 25, T6N-R2E

Franklin County, Mississippi

BLM-A-047559

1000 0 1000 2000FT

SCALE : 1" = 1000'

JKS ENGINEERS SURVEYORS
JORDAN, KAISER & SESSIONS, LLC
279 Lower Woodville Road Natchez Ms, 39120
800.573.3303 601.442.3628
FAX 601.442.5511 www.jksllc.com

J:\MS\06N02E\STROUD\HOMOCHITTO25-3\25-6\USA.dwg

September 2014

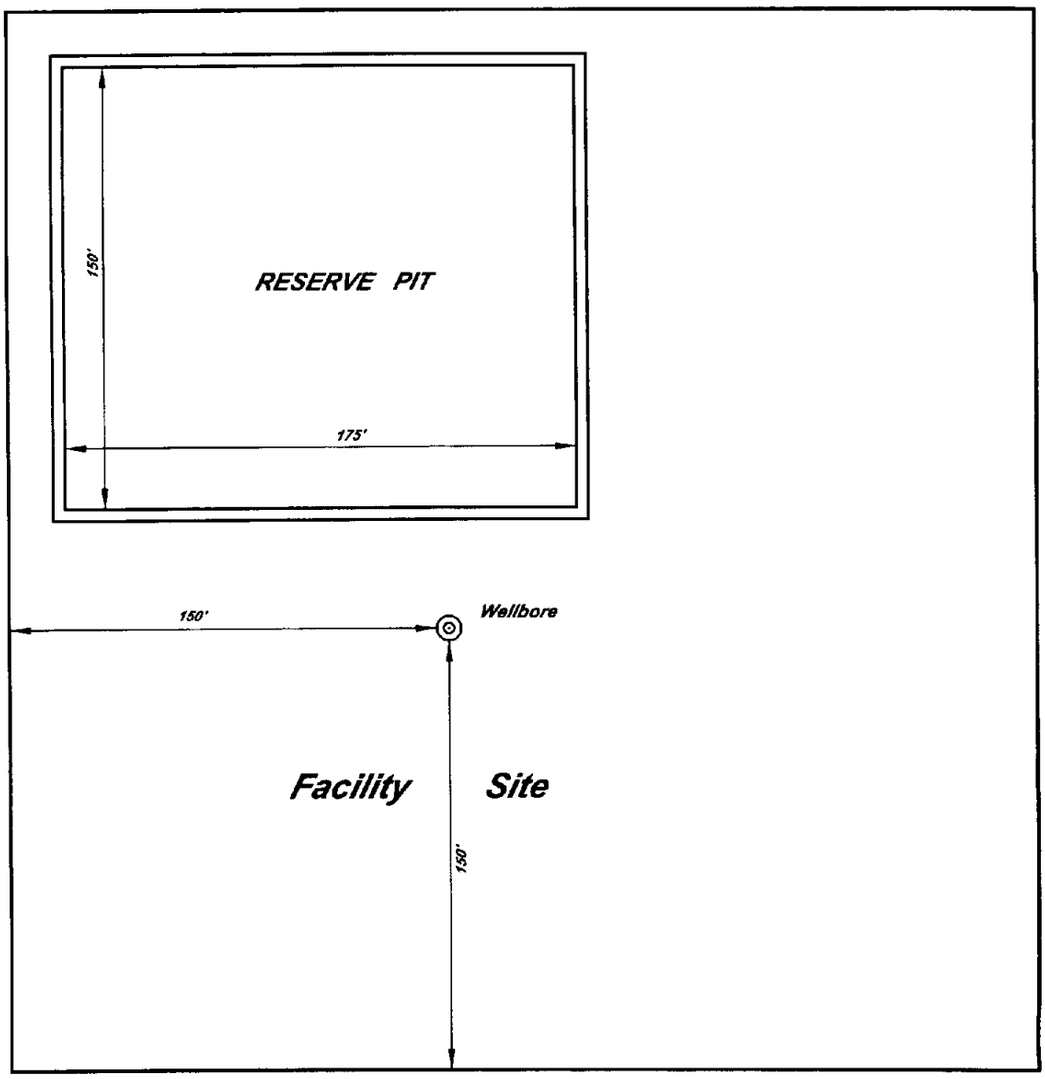
S1409011

INFORMATION REQUESTED FOR RESERVE PIT AND SURFACE DRAINAGE

A. The approximate volume of drilling mud, cuttings, drainage water and other associated fluids to be contained within the reserve pit is 196,875 cubic feet or 35,000 barrels.

B. The typical size of the reserve pit will vary from 100 feet by 100 feet to 175 feet by 175 feet, depending on the topography of the drill site. The depth of the reserve pit will be sufficient to accommodate the volume of the drilling fluids.

C. Spent drilling fluids may be disposed of by injection down the surface casing.



—NOTE—
Surface Drainage

TYPICAL ROTARY RIG FACILITY SITE

(Tuscaloosa Etc)

OPERATOR'S REP.: David Wright

OPERATOR: STROUD PETROLEUM, INC.

ADDRESS : 416 Travis St. - Suite 600

Shreveport, LA. 71101

WELL NAME : Homochitto 25-3 No. 3

LOCATION: Sec. 25 T 6N R 2E

TELEPHONE NUMBER: 318.425.0101

COUNTY : Franklin

STATE OF MISSISSIPPI

Scale: 1" = 60'

September 2014

Exhibit: DF-RP

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S1409011

Orientation derived from GulfNET RTN, NAD'83
Mississippi West Zone, US Survey Foot.

Bk. 1433, Pg. 15-22

- GENERAL NOTES -

(1) Elevations on N.G.V.D. datum
(2) Solid Line indicates perimeter of Facility Site, marked by stakes with Pink Flagging and corresponding numbers.
(3) Dashed Line indicates perimeter of Graded Site, marked by stakes with Blue Flagging and corresponding numbers.
(4) (3) indicates tabulated elevations.
(5) All slopes are 3 to 1 (Minimum), unless oterwised noted
(5A) 2, 4, 8 & 14 slopes are 2 to 1 (Minimum).
(6) See Sheet No. 2 for Cross Sections of Site.
(7) See Sheet No. 3 For Cross Sections of Pits.
(8) Area Of Facility Site = 2.07 Acres.

- FACILITY SITE ELEVATIONS -

(1)	328.0	(2)	331.6	- FILL	18.0	(2:1)
(3)	317.0	(4)	327.0	- FILL	23.0	(2:1)
(5)	341.0	(6)	342.0	- FILL	8.0	
(7)	322.0	(8)	326.2	- FILL	24.0	(2:1)
(9)	338.0	(10)	340.0	- FILL	10.0	
(11)	337.0	(12)	343.7	- FILL	6.0	
(13)	379.0	(14)	371.0	- CUT	21.0	(2:1)
(15)	349.0	(16)	349.0	- FILL	1.0	

Proposed Graded Site = 350.0 N.G.V.D.
Grd Elev at STA LOC = 353.0 N.G.V.D.

Map Of Proposed

FACILITY SITE

Prepared For

STROUD PETROLEUM, INC.

Homochitto 25-3 No. 3

Situated In

Section 25, T6N-R2E

Franklin County, Mississippi

60 0 60 120FT

SCALE : 1" = 60'

April 2013

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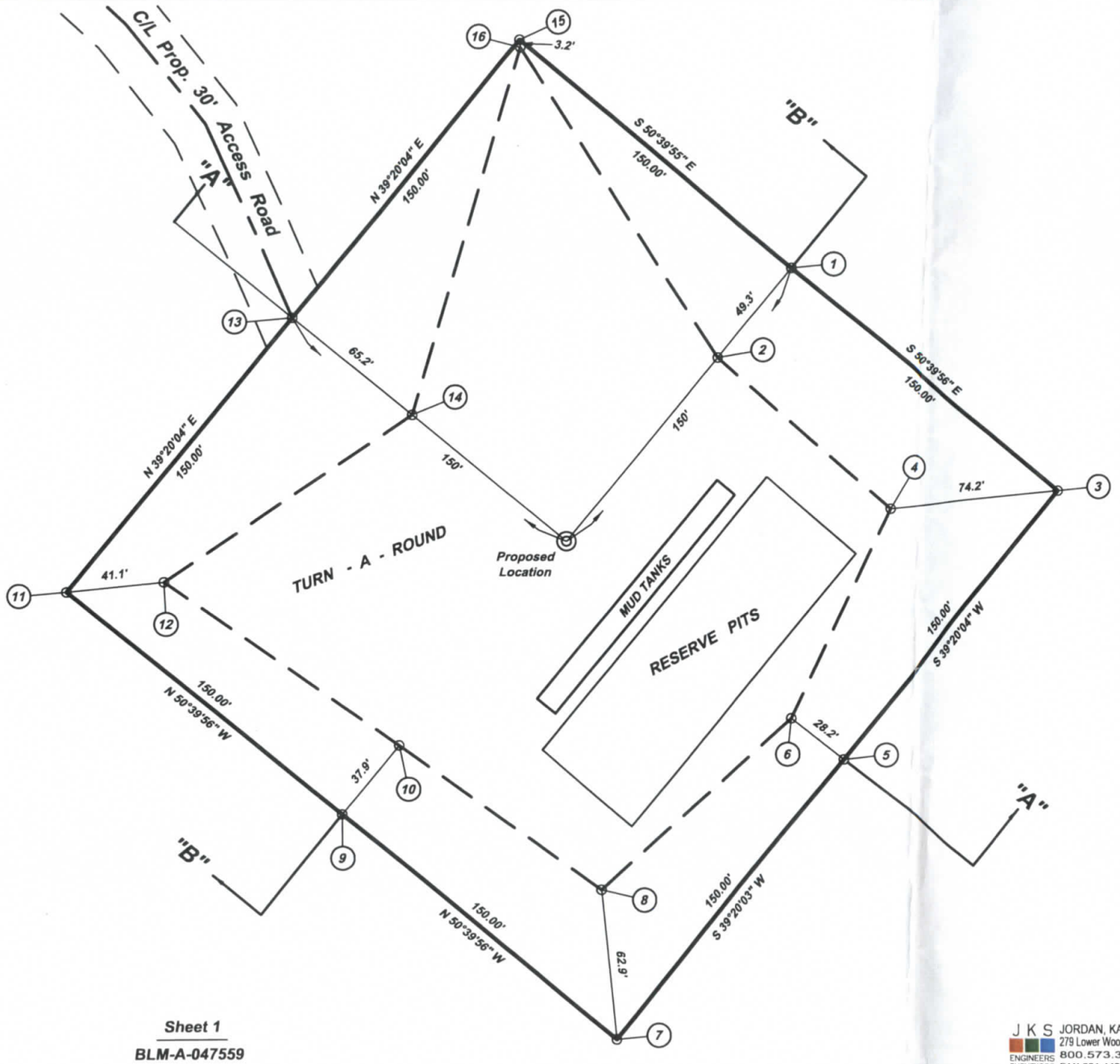

Sheet 1

BLM-A-047559

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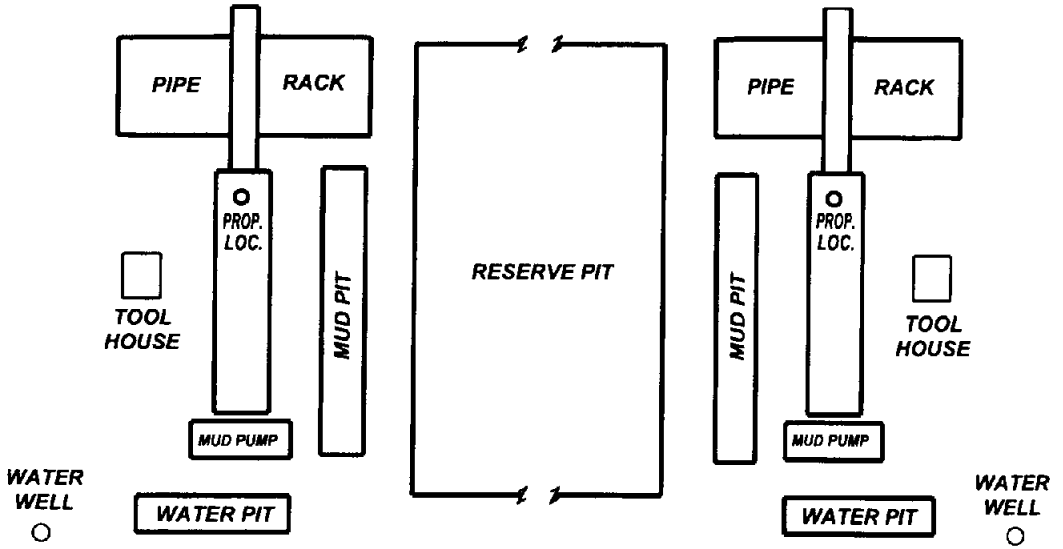
279 Lower Woodville Road Natchez Ms, 39120
800.573.3303 601.442.3628
FAX 601.442.5511 www.jkslic.com

S1409011

- GENERAL NOTES -

(1) See Sheet No. 1 for Facility Site and location of Reserve Pit as specified by the District Ranger.

(2) Either Layout (A) or (B) may be used, depending upon the Contractor that drills the location.



LAYOUT - (A)

LAYOUT - (B)

Typical Layout Of

ROTARY DRILLING RIG

Prepared For

STROUD PETROLEUM, INC.

Homochitto 25-3 No. 3

Situated In

Section 25, T6N-R2E

Franklin County, Mississippi

50 0 50 100FT

SCALE : 1" = 50'

September 2014

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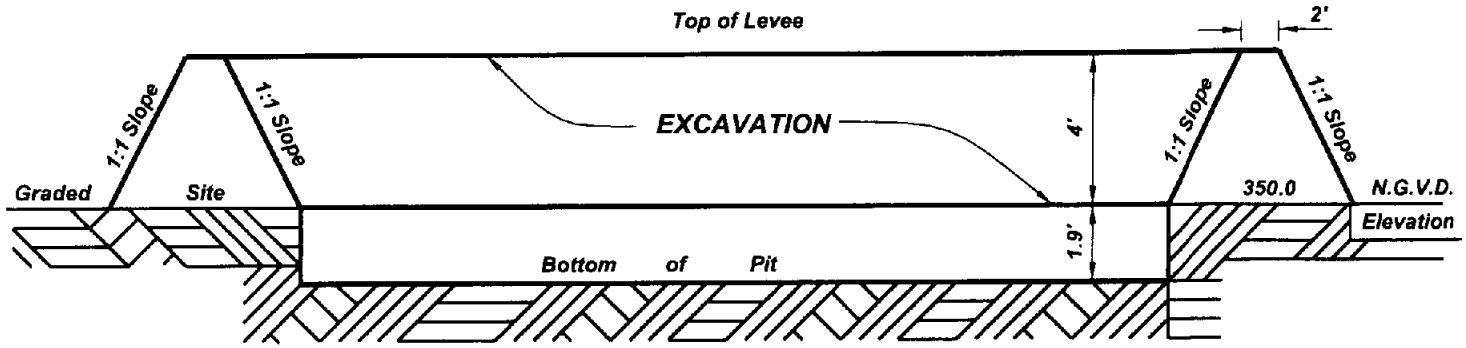
Sheet No. 1A

BLM-A-047559

JORDAN, KAISER & SESSIONS, LLC
Civil Engineers & Professional Land Surveyors
P. O. Box 1267, Natchez, Mississippi 39121
Tel. 601.442.3628 Fax. 601.442.5511

File: S1409011



RESERVE PIT

- TYPICAL SECTION -

Map Of Proposed

RESERVE PIT
CROSS SECTIONS

Prepared For

STROUD PETROLEUM, INC.
Homochitto 25-3 No. 3

Situated In

Section 25, T6N-R2E

Franklin County, Mississippi

NOTE: Drawing NOT TO SCALE

September 2014

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Sheet No. 3

BLM-A-047559

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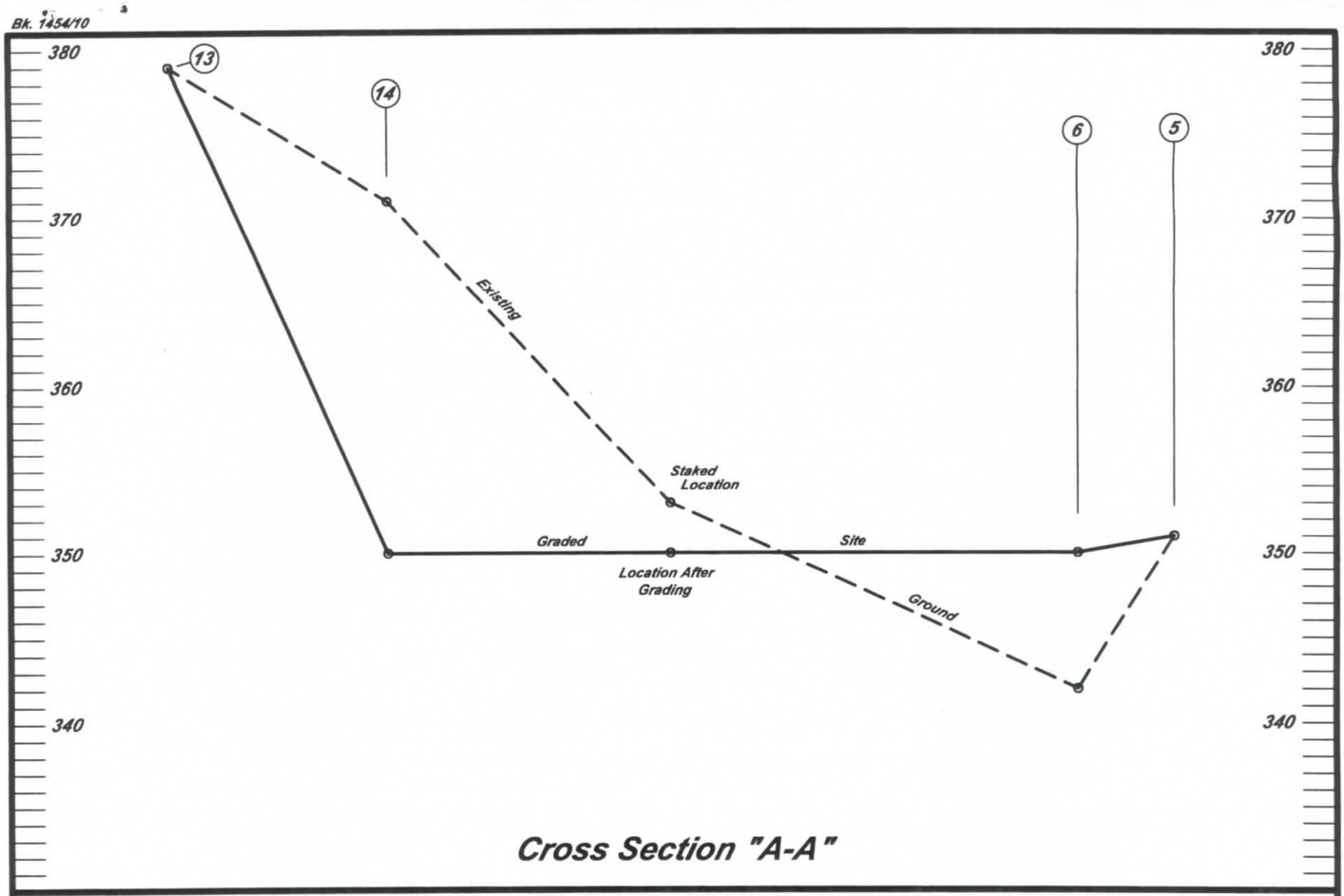
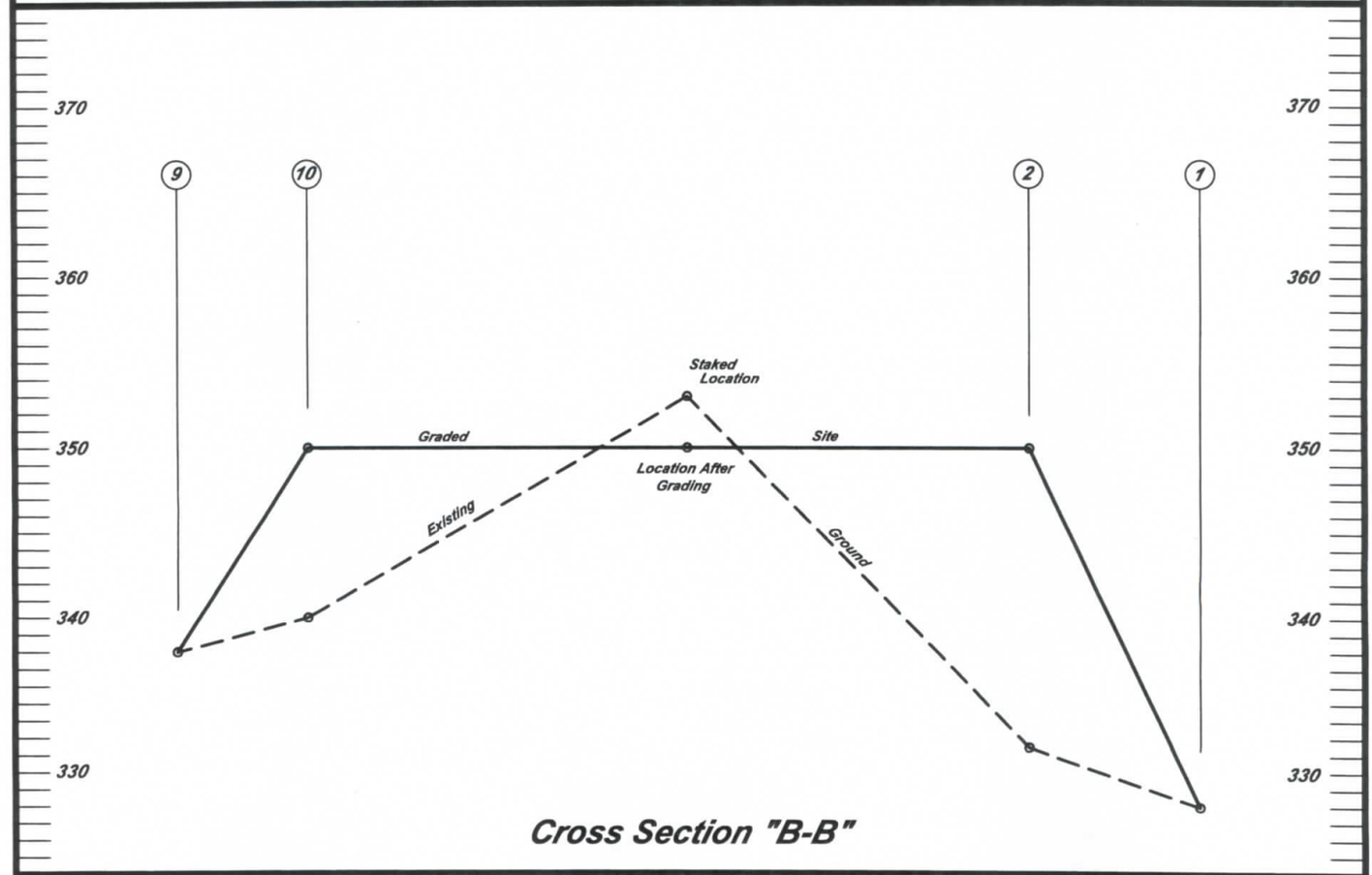
Bk. 1454/10



Cross Section "A-A"



Cross Section "B-B"

Map Of Proposed

Facility Site Cross Sections

Prepared For

STROUD PETROLEUM, INC.

Homochitto 25-3 No. 3

Situated In

Section 25, T6N-R2E

Franklin County, Mississippi

SHEET NO. 2

BLM-A-047559

50 0 50 100FT

HORIZONTAL SCALE : 1" = 50'
VERTICAL SCALE : 1" = 10'

September 2014

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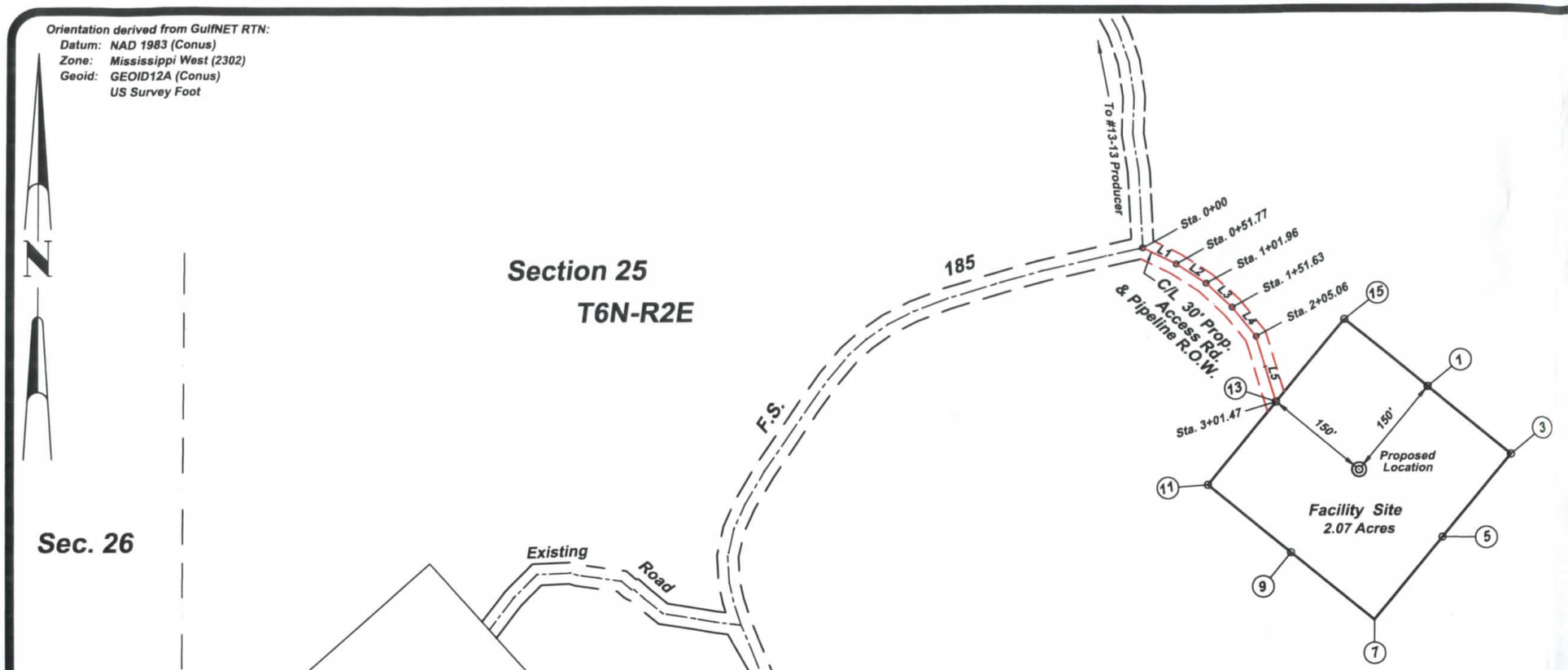
Bk. 1454/10

Orientation derived from GulfNET RTN:
Datum: NAD 1983 (Conus)
Zone: Mississippi West (2302)
Geoid: GEOID12A (Conus)
US Survey Foot



- STATION -	- ELEVATION -
0+00.00	388.9
0+51.77	390.3
1+01.96	395.1
1+51.63	388.6
2+05.06	382.9
2+50.00	380.0
3+01.47	379.1

Centerline Proposed 30' Access Road

LINE	BEARING	DISTANCE
L1	S 64°21'36" E	51.77'
L2	S 57°26'54" E	50.19'
L3	S 47°27'27" E	49.67'
L4	S 38°51'12" E	53.43'
L5	S 16°52'03" E	96.41'

- ROADWAY -

Width - 12 Feet
Max Grade - 7%
Turnout - 50' Radius
Culverts - 0
Drainage Design - None Req"d
Surface Material - Natural Soil
Width of ROW - 30.0 Feet

AREA OF ROW = 0.21 ACRES

Map Of Proposed

30' ACCESS ROAD & PIPELINE R.O.W.

Prepared For

STROUD PETROLEUM, INC.

Homochitto 25-3 No. 3

Situated In

Section 25, T6N-R2E

Franklin County, Mississippi

200 0 200 400FT

SCALE : 1" = 200'

September 2014

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Sheet No. 4

BLM-A-047559

J K S ENGINEERS SURVEYORS
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279 Lower Woodville Road Natchez Ms, 39120
800.573.3303 601.442.3628
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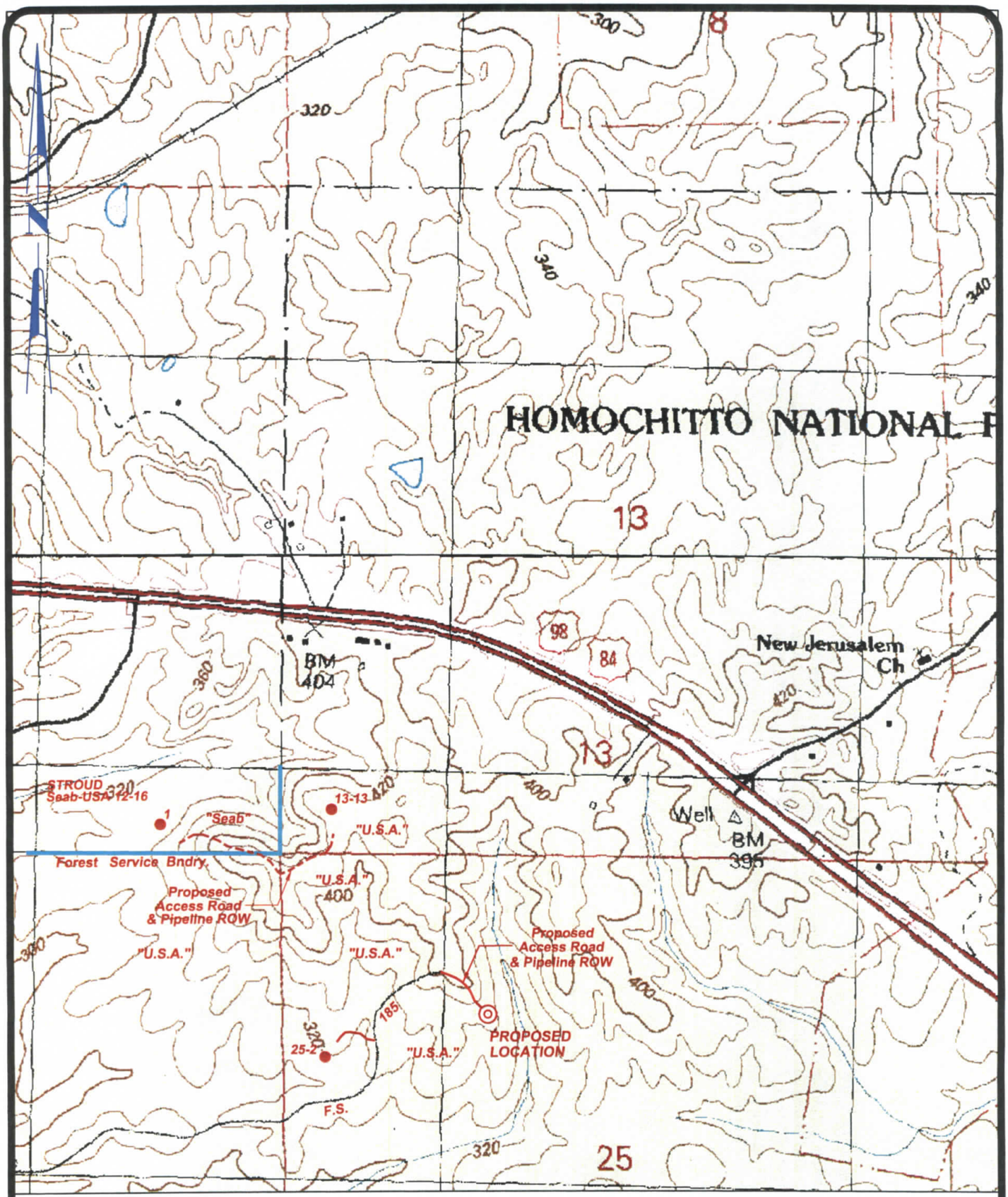
S1409011



U.S.G.S. Quad 7 1/2' series:
Knoxville-Roxie, MS.

Forest Services Boundary

Proposed Topographical Map For

STROUD PETROLEUM, INC.

Homochitto 25-3 No. 3

Situated In

Section 25, T6N-R2E

Franklin County, Mississippi

SHEET NO. 5
BLM-A-047559

1000 0 1000 2000FT

SCALE : 1" = 1000'

J K S ENGINEERS SURVEYORS
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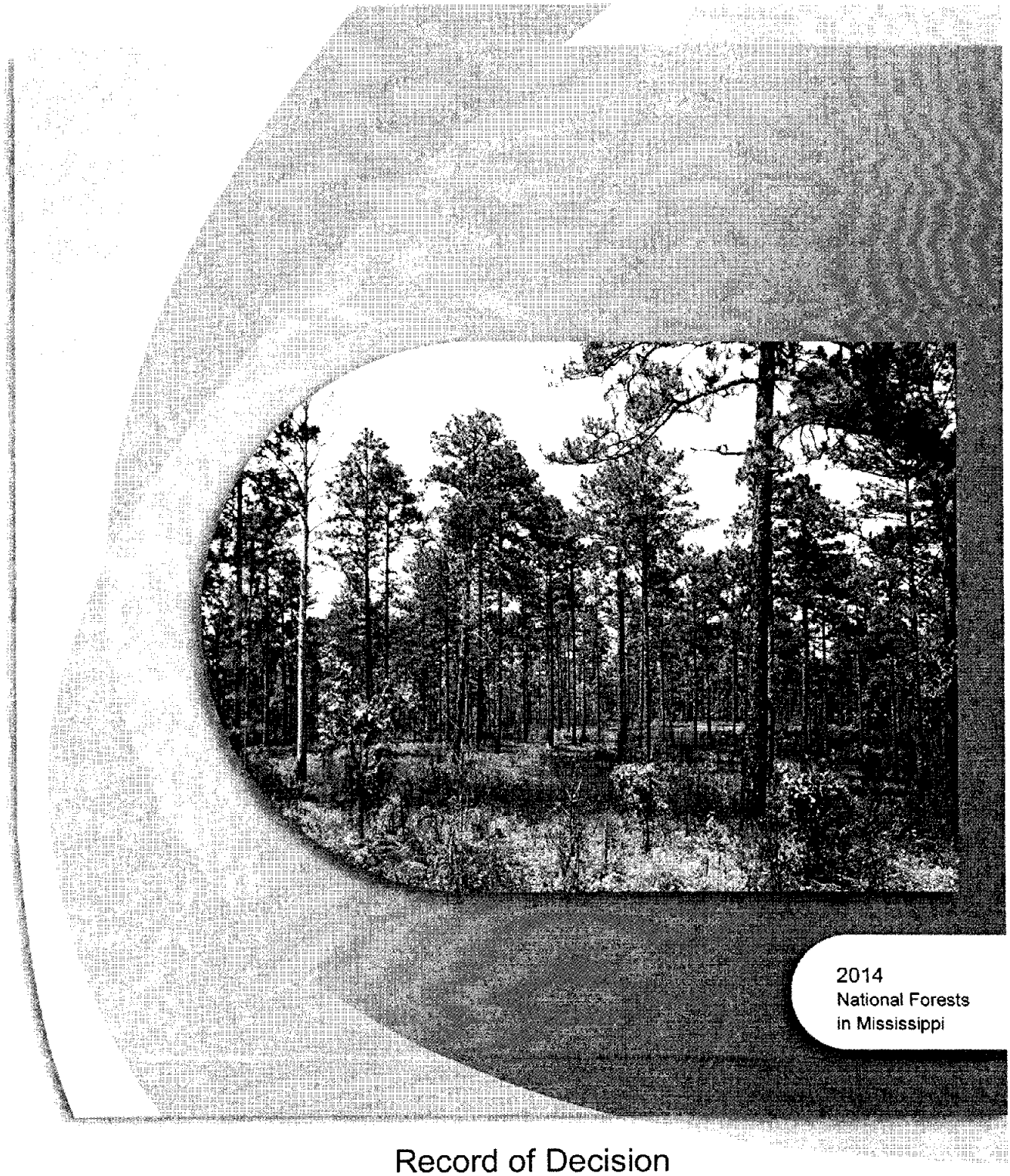
USDA United States Department of Agriculture



2014
National Forests
in Mississippi

Record of Decision

Final Environmental Impact Statement for the Land and Resource Management Plan

Forest Service | Region 8 | National Forests in Mississippi | R8-MB 144 D | August 2014

Record of Decision

Final Environmental Impact Statement for the Revised Land and Resource Management Plan

National Forests in Mississippi

Lead Agency:	USDA Forest Service
Responsible Official:	Liz Agpaoa USDA Forest Service, Southern Region 1720 Peachtree Road, NW Atlanta, Georgia 30309
For information, contact:	Forest Supervisor National Forests in Mississippi 200 South Lamar St., Suite 500-N Jackson, MS 39201 601-965-1600

Contents

Introduction

This Record of Decision (ROD) documents my decision and rationale for approving the Revised Land and Resource Management Plan (Revised Forest Plan) for the National Forests in Mississippi (NFs in MS), which will provide management direction for approximately 1.2 million acres of land in Mississippi. The previous Land and Resource Management Plan for the NFs in MS was approved in 1985.

This Revised Forest Plan is part of the long-range resource planning framework established by the Forest and Rangeland Renewable Resources Planning Act of 1974 (RPA), the Government Performance and Results Act of 1993 (GPRA), and the 2007 Revision of the USDA Forest Service Strategic Plan. The National Forest Management Act of 1976 (NFMA) requires all units of the National Forest System to develop plans that direct resource management activities on the forests.

The Revised Forest Plan establishes a framework for future decision-making by outlining a broad, general program for achieving desired conditions and objectives for the NFs in MS over the next 10 to 15 years. Once approved by this decision, the Revised Forest Plan is carried out at the "project level" by implementing specific projects at specific locations (such as relocating a trail, prescribed burning an area, or harvesting timber), over time, ensuring each project is consistent with the guiding direction in the Revised Forest Plan.

The Revised Forest Plan does not direct specific management activities to occur at specific locations, nor does it dictate day-to-day administrative activities needed to carry on the Forest Service's internal operations (i.e., personnel matters, law enforcement, fleet equipment, or internal organization changes).

The Final Environmental Impact Statement (FEIS) that accompanies the Revised Forest Plan provides analytical data that discloses the environmental consequences of the alternative management strategies considered and discusses how these alternatives respond to issues and concerns.

The Final Environmental Impact Statement and Revised Forest Plan were developed according to the NFMA, its implementing regulations at 36 Code of Federal Regulations (CFR) 219, the National Environmental Policy Act of 1969 (NEPA), and the Council on Environmental Quality (CEQ) regulations at 40 CFR 1500-1508. The current Planning Rule, published on April 9, 2012, at 36 CFR 219.17(b)(3) allows for plan revisions initiated before May 9, 2012 to be revised in conformance with the provisions of the prior planning regulations, including its transition provisions. According to 36 CFR 219.35 and Appendix B to 219.35 of those prior regulations (see 36 CFR 219, published at 36 CFR parts 200 to 299, revised as of July 1, 2010), the responsible official may elect to use the provisions of the 1982 planning regulations to prepare plan amendments and revisions. For this revision of the NFs in MS Land and Resource Management Plan, I have elected to follow the provisions of the 1982 planning rule as published on September 30, 1982 and subsequently amended.)

This decision applies only to National Forest System lands of the National Forests in Mississippi. It does not apply to any other Federal, State, or private lands, although the

effects of these lands and the effects of my decision on lands surrounding the national forest are also considered.

My Decision

I have selected Alternative C from the FEIS as the Revised Land and Resource Management Plan for the National Forests in Mississippi. My decision is described below and is supplemented by maps and information in the FEIS and the project record.

Components of the Decision

The FEIS and Revised Forest Plan were developed according to the National Forest Management Act of 1976 (NFMA) and its implementing regulations, 36 CFR 219 (1982 planning regulations). Components of forest plan decisions are outlined in the National Forest Management Act (1976). The decisions I am making in this Record of Decision for the Revised Forest Plan are:

Establishment of forestwide multiple-use goals, desired conditions and objectives (36 CFR 219.11(b))

This management direction is intended to provide for ecological sustainability, multiple use and sustained yield of the products and services people use from the Forest, including outdoor recreation, timber, water, wildlife, fish, and wilderness. The Revised Forest Plan establishes the desired conditions for the NFs in MS in Chapter 2 and the objectives needed to work toward those desired conditions are established in Chapter 3.

Establishment of forestwide management requirements (standards and guidelines) (36 CFR 219.11(c) & 219.27)

Forestwide standards and guidelines are found in Chapter 4 of the Revised Forest Plan. Standards are limitations on actions or thresholds not to be exceeded. Guidelines are requirements that should be followed unless a different management action demonstrably achieves the same intent as the guideline. To simplify the Revised Forest Plan, direction that would duplicate laws, policies, Forest Service Manual, and Forest Service Handbook direction or other regional directives is not included.

Establishment of management areas and the management prescriptions applied to those areas (36 CFR 219.11(c)).

Management areas reflect biological, physical, and social differences; and management prescriptions reflect different desired conditions. Management areas and prescriptions are described in Chapter 4 of the Revised Forest Plan. The Revised Forest Plan identifies two different types of management areas. There are ecosystem-based management areas that are based upon the primary theme of restoring and sustaining the different native ecological communities within the NFs in MS. The other types of management areas are geographically-based. The geographic-based management areas are:

- Red-cockaded Woodpecker Habitat Management Areas (HMAs)
- Administrative Areas
- Developed Recreation Areas

- Botanical Areas
- Scenic Areas
- Wild and Scenic Rivers
- Wilderness Areas
- Archaeological Site
- Recreational Areas
- Experimental Forests
- Research Natural Areas

The ecologically-based management areas do not have precise boundaries and may contain less-common ecosystems or other designated geographic areas. Where there is an overlap in management areas, the most restrictive plan direction would apply.

Determination of land that is suitable for timber production (36 CFR 219.14) and establishment of the allowable sale quantity (ASQ) of timber (36 CFR 219.16).

The determination of lands suitable for timber production is found in Chapter 4 of the Revised Forest Plan. Approximately 954,265 acres or 81 percent of the NFs in MS is identified as suitable for timber production.

The Revised Forest Plan establishes an ASQ of 178.7 MMCF (million cubic feet) for the next 10 years (see also Appendix B of the Revised Forest Plan).

Recommendations for non-wilderness allocations and recommendations for wilderness status (36 CFR 219.17).

As is documented in Appendix C to the FEIS, no areas were found in the NFs in MS that met the criteria for inclusion in the inventory of potential wilderness areas. Consequently, no areas were evaluated and there are no areas to recommend for additions to the National Wilderness System within the NFs in MS.

Recommendations for wild and scenic rivers and other special use designations.

There is one Congressionally-designated Wild and Scenic River located on the NFs in MS, the Black Creek Scenic River. No rivers outside of Black Creek have been identified as eligible for further study. The Revised Forest Plan establishes the Black Creek Corridor Scenic Management Area, which is a corridor along Black Creek that extends approximately 41 miles. This Corridor includes both the Congressionally-designated Scenic River portion, as well as non-designated portions. All portions of this Corridor will have the same management emphasis.

Based upon the recommendations of Alternative C in the FEIS, this Record of Decision establishes the following areas as Research Natural Areas (RNAs):

- Nutmeg Hickory RNA (Bienville District, 307 acres)
- Granny Creek Bay RNA (De Soto District, 127 acres)

The following areas will also be designated as Botanical Areas on the NFs in MS:

- Laurel Oak Botanical Area (Chickasawhay District, 277 acres)
- Railroad Creek Titi Botanical Area (De Soto District, 451 acres)
- Little Florida Botanical Area (De Soto District, 121 acres)
- Pitcher Plant Botanical Area (De Soto District, 251 acres)
- Buttercup Flat Botanical Area (De Soto District, 164 acres)
- Loblolly Bay Botanical Area (De Soto District, 93 acres)
- Ragland Hills Botanical Area (De Soto District, 237 acres)
- Wyatt Hills Botanical Area (De Soto District, 100 acres)
- Cypress Bayou Botanical Area (Delta District, 262 acres)
- LA-2 Botanical Area (Holly Springs District, 12 acres)
- LA-6 Botanical Area (Holly Springs District, 158 acres)
- Sandy Creek Botanical Area (Homochitto District, 300 acres)
- Shagbark Hickory Botanical Area (Tombigbee District, 109 acres)
- Choctaw #4 Botanical Area (Tombigbee District, 45 acres)
- Prairie Mount Botanical Area (Tombigbee District, 370 acres)
- Bogue Cully Botanical Area (Tombigbee District, 500 acres)

These RNAs and Botanical Areas are described in Chapter 4 of the Revised Forest Plan and identified on the Revised Forest Plan Maps (see Revised Plan, Appendix F).

Designation of lands suitable for grazing (36 CFR 219.20).
The grazing program on the NFs in MS has declined to the point that an active range allotment program is no longer feasible. The only active range allotments occur on the De Soto NF and these existing allotments will continue until their permits expire. No new allotments will be authorized unless a significant increase in demand is realized and the Revised Forest Plan amended to allow for such authorization.

Establishment of monitoring and evaluation requirements (36 CFR 219.11 (d)).
Monitoring and evaluation requirements are found in Chapter 5 of the Revised Forest Plan. Specific monitoring questions are identified and directly linked to the Revised Forest Plan desired conditions, objectives, standards, and specific regulatory requirements. These requirements ensure that the Revised Forest Plan is adaptive and that sustainability is being achieved or adjustments will be made.

Determination of lands administratively available for oil and gas leasing (36 CFR 228.102 (d))
In August 2010, the National Forests in Mississippi renewed its decision for Lands Available for Oil and Gas Leasing (USDA Forest Service 2010) and the results of that decision are incorporated into the Revised Forest Plan. The 2010 decision did, however, defer making a leasing decision on the Sandy Creek RARE II Further Study Area. As a result of this FEIS, it has been determined that the 2,558 acres within the Sandy Creek RARE II Further Study Area will be available for oil and gas leasing. The approximately 300 acre Sandy Creek Botanical Area within the Further Study Area will be available for

leasing with a no-surface occupancy stipulation, and the remaining lands within the Further Study Area (which is also identified as an inventoried roadless area) will be available for leasing while still meeting the road construction/reconstruction limitations contained in the 2001 Roadless Area Conservation Rule.

Highlights of the Selected Alternative

Overarching Themes of the Final Plan

The NFs in MS worked with stakeholders through an iterative process to identify important issues and desired conditions. While many different desired conditions were identified by stakeholders, widespread support among the public, Forest Service staff, other agencies, and interested parties for native ecosystem restoration, species diversity and habitat improvement for threatened and endangered (T&E) species made this the foundation for the overall direction taken in the final Plan. Public comments received on the proposed revised plan generally affirmed the collaborative consensus on the overarching themes that are the focus of the final Revised Plan.

1. **Restore native ecological systems** –Restoration of native ecological systems is a major desired condition for stakeholders and serves as the primary framework for the final Revised Plan. Twenty-four native ecological systems were identified on the NFs in MS, including 9 unique communities or uncommon local features. Desired conditions include conversion of loblolly and slash pine stands to longleaf pine and shortleaf pine-oak ecosystems, restoration of floodplain forests, and continued maintenance and enhancement of native hardwood ecosystems and unique communities such as native prairies and bogs. Over the next 10 years, proposed objectives include the conversion of approximately 23,000 acres to appropriate ecosystems and structural, age, and species improvements on approximately 150,000 acres.
2. **Protect diversity of species** – One of the basic tenets of the final Revised Plan is that managing for a diversity of healthy native ecosystems is integral to providing appropriate ecological conditions for a diversity of plant and animal species. In developing the Plan, a list of all potential species that could occur on the NFs in MS was developed and analyzed through a series of collaborative meetings with technical experts and taxonomic specialists familiar with the plant and animal species across Mississippi. Species that could possibly occur on the NFs in MS were further evaluated through a series of iterative screenings which identified federal T&E species, sensitive species, and locally rare species. As the direction of the final Plan was developed, the specific needs and habitats of species were addressed, primarily through the desired conditions and objectives for managing ecosystem diversity, and also though integrated program objectives for soils, water, fire regimes, and other resource areas. T&E species protection and habitat enhancement are emphasized in the final Plan, particularly the needs of the ten T&E species identified as potentially occurring on the NFs in MS (Dusky Gopher Frog, Mississippi Sandhill Crane, Red-cockaded Woodpecker, Gulf Sturgeon, Pallid Sturgeon, Louisiana Black Bear, Gopher Tortoise, Louisiana Quillwort, Pondberry, and Indiana Bat).

3. **Manage for healthy forests** – The final Revised Plan emphasizes a shift in the primary focus from commodity production to native ecosystem restoration and forest health. Vegetation management practices support a variety of integrated desired resource management conditions, including the restoration of historically occurring ecosystems, the creation of a diversity of habitats, the improvement of resilience to natural disturbances and a changing climate, the reduction of impacts from insects and diseases, the control of non-native invasive species, and the production of quality timber commodities.

4. **Conserve old growth communities** – A diversity of tree ages, from regeneration to old growth, is emphasized in the final Revised Plan to support a sustainable mix of ecological conditions across the landscape. The overall strategy is to have a distribution of old growth stands in all ecological systems and all districts, with approximately 10% of each forest ecosystem in old growth conditions.

5. **Restore historic fire conditions** – On the NFs in MS, periodic prescribed burning is the most important tool for recreating historic fire regimes and reducing the risk of catastrophic fires while restoring conditions that favor desirable native ecosystems and habitats for T&E species. The final Revised Plan objectives for prescribed fire total 220,000 acres on average each year. The frequency of return intervals for prescribed burns and the percent of burns conducted during the growing season will vary depending on the ecosystem and habitat needs.

6. **Manage for healthy watersheds** – Productive soils, clean water, and clean air were important desired conditions identified by stakeholders and are essential to sustaining the ecological function and productive capacity of NFs in MS lands. Final Revised Plan standards and guidelines focus on using best management practices for sustaining and improving watershed areas within the national forest. Control and management approaches are identified to work cooperatively with other agencies and landowners to improve statewide watershed health. The final Plan emphasizes desired outcomes that relate to improving or sustaining a diversity of aquatic species and water-related ecosystems.

7. **Maintain sustainable infrastructure and access** – The desired conditions and objectives of the final Revised Plan focus on providing for the safety and maintenance of the existing roads, trails, and facilities that make up the NFs in MS infrastructure. This includes objectives for backlogged repairs and upgrades, improvements for environmental protection, disposal of facilities that are no longer needed, and rehabilitation of user-created trails and roads. The desired condition for the trails system is to sustain a forest-wide network of trails for a variety of uses across the state. The objective is to maintain existing designated trails to standard. Partnerships with other agencies, communities, and special interest groups were identified as key to offering additional seasonal access to wildlife management areas and expanding or adding new trails.

8. **Maintain sustainable recreation** – The final Revised Plan emphasizes sustaining outdoor recreation opportunities on the NFs in MS under anticipated funding levels. The desired conditions and objectives focus on maintaining and improving

existing dispersed recreation opportunities and developed recreation sites, with the addition of new facilities and amenities dependent on expanding local and state-wide partnerships. Instead of sustaining a full mix of recreation opportunities on every unit, recreation use would be considered from a forest-wide perspective with an emphasis on sustainable programs and infrastructure that minimize impacts to the environment. Although the revision process included a thorough review of lands for potential wilderness, no areas were identified as potential wilderness areas and there are no wilderness recommendations.

9. **Provide stable economic benefits** – The national forest activities that generate the majority of the revenues that feed back into the local economy in Mississippi come from timber, minerals, and recreation. As a result of restoring native ecosystems to appropriate sites and maintaining healthy and resilient forests (the final Plan has an objective to harvest 91 MMBF [million board feet] annually); there should be a steady flow of economic benefits back to local communities.

10. **Adapt to changing conditions** – An increase in extreme weather events is the climate change factor most likely to affect the NFs in MS in the next 10-15 years. In response to potential effects from climate change, the final Revised Plan includes desired conditions that will reduce vulnerability by maintaining and restoring resilient native ecosystems, enhance adaptation by reducing impacts from serious disturbances and taking advantage of disruptions, use preventative measures to reduce risk of forest pests, and mitigate greenhouse emissions by reducing carbon loss from hurricanes.

Background

The National Forests in Mississippi (NFs in MS) encompass approximately 1.2 million acres located in six national forests dispersed across the state of Mississippi. The lands that make up the NFs in MS are not only representative of the ecological diversity of the different portions of the state but also serve as a cross-section of Mississippi's natural and cultural heritage.

Statewide, pine-dominated stands, many of which resulted from extensive reforestation efforts in the 1930s, are the most common forest communities. Large tracts of loblolly pine represent the most prevalent forest type, but there are also less-extensive communities of longleaf pine along the Gulf coastal plain and shortleaf pine on more Northern sites. Oaks and hickories dominate the dry slopes and ridges in the northern half of the state, and along the Mississippi River Delta, approximately 60,000 acres of forested wetlands constitute the only bottomland hardwood national forest in the National Forest System (NFS). Other unique ecological systems within the NFs in MS include stands of bald cypress imbedded along oxbow lakes and sloughs, pitcher plant bogs, open grassy prairies, herbaceous seeps and flats, and xeric sandhills.

The six proclaimed national forests that make up the NFs in MS are administratively managed as seven ranger districts. Although each forest has unique characteristics and conditions, they all contribute to forest-wide desired conditions and are managed under one Land and Resource Management Plan. The seven ranger districts or national forests that make up the NFs in MS are:

- Bienville National Forest
- Chickasawhay Ranger District of the De Soto National Forest
- De Soto Ranger District of the De Soto National Forest
- Delta National Forest
- Holly Springs National Forest
- Homochitto National Forest
- Tombigbee National Forest

Purpose and Need for Action

The proposed action is to produce a revised forest plan which will guide resource management activities on the National Forests in Mississippi for the next 10-15 years. Forest plans are required by the Forest and Rangeland Renewable Resources Planning Act of 1974 (RPA), as amended by the National Forest Management Act of 1976 (NFMA). The NFMA regulations require forest plans to be revised on a 10-15 year cycle or sooner when significant changes in conditions or demands occur in the forest plan coverage area. The current forest plan for the National Forests in Mississippi went into effect in 1985 and has been amended 18 times to date. Periodic reviews have identified numerous areas where conditions have changed since 1985. In some cases, new scientific understanding evolved, monitoring direction needed to shift to more important resource concerns, or current direction was not having the intended outcome. For other issues, there were new public priorities, and new desired conditions were needed. In recent years, restoration and maintenance of biodiversity, old-growth forest habitats, and ecosystem management have gained public and scientific interest and have emerged as forest management issues. The amount of time since the implementation of the 1985 forest plan, new scientific understanding, and shifting public interests have all contributed to the need to revise the forest plan.

The National Forests in Mississippi began revision of the 1985 forest plan in 2000 under the existing requirements of the NFMA. In July 2005, the Forests transitioned the forest plan revision process to new 2005 planning rule requirements (36 CFR Part 219). After the 2005 rule was remanded and replaced with a new planning rule in March 2008, the Forests converted to the requirements under the 2008 rule. The 2008 planning regulations were also successfully challenged in court, and the Forests subsequently elected to use the September 1982 version of the NFMA planning regulations (36 CFR 219) to complete the forest plan revision.

Public and Other Agency Involvement

The original Land and Resource Management Plan for the NFs in MS was signed in 1985. The revision process began in 2000 and was interrupted several times by changing planning rules and recovery from Hurricane Katrina. Since the revision process has covered a long time period, the NFs in MS has received input from thousands of Mississippi residents, visitors, conservation groups, recreation groups, industry representatives, community leaders, other agencies, and interested parties about the future they want to see for the six national forests within the state. Forest Service resource specialists and forest managers worked with universities, researchers, and other agencies

to take into account the latest scientific findings, consider evolving management practices, and include new emerging issues such as urban expansion and climate change. Over 40 public meetings and workshops were held at various libraries, community centers, district offices, and local auditoriums across the state. Multiple communication tools were used, including facilitated public workshops, audiovisual presentations, newsletters, flyers, posters, mailings, and the NFs in MS website. Over the course of various delays and transitions, a special effort was made to ensure that earlier public feedback was included and considered as the revision process continued.

The Revised Plan establishes a strong commitment to an all-lands approach to conserve high priority forest ecosystems and landscapes in Mississippi. The Plan promotes achievement of many state-wide goals and objectives identified in Mississippi's Assessment of Forest Resources and Forest Resource Strategy (July 2010) including: restore and manage longleaf pine within its historical range; suppress and eradicate non-native and invasive plants and pests; restore fire-adapted lands and reduce risk of wildfire impacts; protect and enhance water quality; protect, conserve, and enhance fish and wildlife resources; and manage forests to mitigate and adapt to global climate change.

The Draft Revised Forest Plan and associated Draft Environmental Impact Statement were released for notice and comment in February 2013. A Notice of Availability (NOA) was published in the *Federal Register* on February 8, 2013. The forest hosted seven public workshops (meetings across the State) during the ninety-day comment period. The Content Analysis and Response Application (CARA) was utilized to record and document comments received. A total of nineteen unique comment letters were received on the Draft Plan and associated Draft Environmental Impact Statement resulting in a total of 311 public comments. Overall comments were generally supportive of the proposed plan direction with several commenters expressing a desire for increased management objectives to achieve desired conditions at a faster pace.

These comments and our responses are documented in Appendix A of the Final EIS. Appendix A further documents the public involvement process, and complete details are in the process record.

Alternatives

Five alternatives were analyzed in detail in the EIS.

Alternative A – Custodial Management

This alternative allows natural succession to dominate the landscape with minimal intervention by active management practices. Resource management activities would focus on the protection of natural resources and meeting legally mandated requirements. Management for the conservation and recovery of threatened and endangered species and their critical habitat would dominate as the primary management focus or emphasis. Ecosystem management strategies would favor natural succession and implementation of low intensity forest health management practices. Best management practices and regulations would be followed to protect water quality and riparian areas, but watershed restoration efforts would be limited. Recreation opportunities would emphasize low

impact recreation opportunities (favor nonmotorized activities). Roads not needed for legal requirements and other resource needs would be closed or obliterated.

Alternative B – No-Action (Current Management)

This alternative would continue implementation of the original 1985 Forest Plan, as amended and consistent with expected budget and staffing levels. This alternative serves as a baseline to measure opportunity cost trade-offs associated with proposed changes to management direction. Production of both commercial wood products and creation of a variety of wildlife habitats would be emphasized. Developed and dispersed recreation opportunities would be in a variety of settings—both natural and managed. Water quality and riparian areas would be protected through implementation of best management practices and streamside management zones, with minor investment in small watershed restoration projects. Access would be developed, maintained, and used as needed to meet the goals of balanced age classes, wildlife habitat, and production of timber products.

Alternative C – Proposed Action (Selected Alternative)

The proposed action alternative is biologically based and driven, with emphasis on restoring natural resources and natural processes and creating and maintaining diverse wildlife habitats. Restoration of native ecological communities would be based on the ecological potential and capability of the land. Restoration activities would provide a mix of wildlife habitat conditions favorable for game and non-game species. Restoration activities would produce both large and small openings. Water quality and riparian areas would be protected through implementation of best management practices and streamside management zone, with minor investments in priority watershed restoration projects. A variety of recreation settings and opportunities would occur in areas where they would be compatible with restoration activities and in areas where restoration is not occurring. Access would be reduced, as needed, to restore and protect aquatic systems, soils, and plant and animal communities. Funding levels would be comparable to Alternative B having budget allocations similar to recent levels and held constant.

Alternative D – Accelerated Restoration

This alternative, like the proposed action alternative, is biologically based and driven, with emphasis on restoring natural resources and natural processes, and creating and maintaining diverse wildlife habitats. Restoration of native ecological communities would be based on the ecological potential and capability of the land, and the pace of restoration would be accelerated by additional regeneration activities. Restoration of native ecosystems would provide a mix of wildlife habitat conditions favorable for game and non-game species, and both large and small openings would be produced. This alternative directs additional resources toward meeting these accelerated native ecosystem restoration efforts. However, management activities contributing toward improved forest health, while greater than current management projections, would be less than that projected for Alternative C. Water quality and riparian areas would be protected through implementation of best management practices and streamside management zone, with minor investments in priority watershed restoration projects. A variety of recreation opportunities and settings would occur in areas where they would be compatible with restoration activities and in areas where restoration in not occurring. Access would be

reduced, as needed, to restore and protect aquatic systems, soils, and plant and animal communities.

Alternative E – Enhanced Forest Health

This alternative is biologically based and driven, with emphasis on restoring natural resources and natural processes and creating and maintaining diverse wildlife habitats. Restoration of native ecological communities would be based on the ecological potential and capability of the land, and the pace of restoration would be further accelerated by increasing both regeneration and thinning activities. The vegetation management program of this alternative would be around 75% of the estimated long-term sustained yield capacity for the National Forests in Mississippi land base. Management activities would provide a mix of wildlife habitat conditions favorable for game and non-game species and produce both large and small openings. This alternative directs additional resources toward the increased emphasis on improving healthy forest conditions while also achieving an increase in native ecosystem restoration objectives across the forest. While these restoration efforts would be greater than those in Alternative C, they would be less than Alternative D's projected restoration objectives. Water quality and riparian areas would be protected through implementation of best management practices and streamside management zone, with additional investment in priority watershed restoration projects. A variety of recreation opportunities and settings would occur in areas where they would be compatible with restoration activities and in areas where restoration in not occurring. Access would be reduced, as needed, to restore and protect aquatic systems, soils, and plant and animal communities.

Alternatives Considered but Eliminated From Detailed Study

A broad range of alternatives was originally considered during the analysis process. Management scenarios for potential alternatives were analyzed for a variety of issues including effectiveness in meeting desired conditions, policy requirements, and implementation feasibility. Early in the revision process, comments were made to consider a strong commodity-driven focus that would emphasize production of high levels of goods and services for local markets. Under this scenario, timber management would provide a greater sustained yield of wood products with an emphasis on high-quality sawtimber, as well as providing public demand for game species for hunting. In a similar manner, comments were also made to expand developed and dispersed recreation opportunities to a broader variety of settings across the state. Based on analysis, these options were considered but eliminated from further study. Although the Forest is capable of producing a sustained yield at a much higher level of timber production, and expanded recreation opportunities are possible within the land base, maximization of these resources would come at the expense of other resources. Anticipated agency funding levels would not support higher levels of timber production or expanded recreation facilities with their associated increase in operational and maintenance costs. Also, the multiple-use mandate would not be met in emphasizing singular resource programs. While these alternatives were not carried forward, portions of these scenarios were incorporated into alternatives C, D, and E.

Another similar alternative considered but eliminated addressed comments about the low levels of timber harvest on the Forest and recommendations to at least harvest an amount equal to the annual growth. This alternative was not considered in detail because it would not be physically or biologically sustainable over the long term. At this level of timber harvest, there would be soil and water concerns for erosion damage, increased sedimentation, and reduction of water quality. There would also be biological concerns for reduction of species diversity and loss of habitat for threatened and endangered species. In addition, this alternative was not considered feasible because it would not meet the long-term sustained yield requirements of the NFMA. Another related alternative that considered production near long-term sustained yields was not carried forward because of similar unacceptable levels of environmental impact and lack of funding and staffing for these more intensive management levels.

Other alternatives considered looked at expanded emphasis on red-cockaded woodpecker (RCW) habitat. Comments were made during the plan revision process to consider emphasizing thinning existing forest settings for RCW and forgoing regeneration and restoration of longleaf pine ecosystems to accommodate immediate habitat improvement. While this alternative would provide appropriate habitat in the short term, it was not considered in detail because it would not sustain optimal habitat over the long term. A mix of thinnings and regeneration is needed to sustain optimal habitat for RCW populations.

Another RCW alternative considered the potential to supplement habitat for RCW populations located on the Noxubee National Wildlife Refuge adjoining the Tombigbee National Forest (NF). Work is underway on the Noxubee Refuge to increase RCW populations, and this scenario would shift NFs in MS resources to the Tombigbee to support this expansion. This option was closely examined and modeled and found to be a possible opportunity in the future but not a viable option at this time. As population objectives are reached on the Noxubee in coming years, expanded habitat on the Tombigbee may be appropriate, but until RCW populations reach higher levels, this alternative would pull limited NFs in MS resources from other areas and impede the recovery efforts for RCW populations on existing habitat management areas (HMAs) on the NFs in MS.

Rationale for Decision

My decision to select Alternative C for implementation is based on a careful and reasoned comparison of the environmental consequences of and responses to issues and concerns for each alternative. I selected Alternative C because it represents the best mix and balance of management strategies that: 1) are responsive to the issues, concerns, and opportunities expressed by the public and other agencies; 2) establish ambitious but achievable objectives for ecosystem management and restoration and the management of the forest's multiple uses; and 3) makes appropriate recommendations for Special Area designations.

Five alternatives were evaluated in detail in the final environmental impact statement. The emphases of these alternatives are described above in an earlier section of this document. Alternatives A, B, D and E were not selected for the following reasons:

I did not select Alternative A because community diversity and species viability would likely decline.

- It does not provide for restoration of native ecosystems.
- A long-term reduction in the level of habitat management activities may negatively affect threatened and endangered species populations.
- An across the board reduction in ecosystem services and recreation opportunities does not address nor satisfy public expectations or desires.

Alternative B was not selected because continuation of current management direction would not result in an improvement in community diversity and species viability.

- No new special management areas would be established.
- Continuation of current management direction does not incorporate best science practices for threatened and endangered species management nor old growth conservation.
- Red-cockaded woodpecker habitat management areas would remain set to their tentative boundaries.
- A comprehensive old growth conservation management strategy would not be implemented.

Alternative D and E were not selected primarily because additional funding necessary to support and sustain the projected level of management practices is currently not available nor anticipated in the foreseeable future. Total annual federal discretionary spending levels are not expected to increase in the near future. As a result our budget authority is expected to remain flat or decline during this plan cycle. These two alternatives do however, provide information on the opportunity costs and trade-offs involved if additional funding and program level increases were to become available during the plan period.

Alternative C, as reflected in the Revised Forest Plan, is responsive to the Forest Service's National Strategic Plan (2007), and it meets our legal obligations to the people and environment that surrounds them. The optimal implementation rate for the Revised Forest Plan could require higher funding levels in some areas than those currently allocated; however, I believe the management direction changes envisioned in the Revised Plan can be implemented under current budget levels. The attainment of desired conditions and outputs in some areas, however, may be delayed or reduced if future budgets decrease.

In summary, I believe Alternative C sets the framework for future decisions better than the other alternatives because it:

- Includes reasonable strategies to implement endangered species recovery plans,
- Restores native ecosystems at a reasonable pace
- Integrates application of vegetation management practices and prescribed fire to achieve restoration of fire dependent ecosystems on a landscape scale
- Assures habitats are adequate to support positive trends for community diversity and species viability
- Develops strategies for sustaining rare communities and species by providing special interest areas as a refuge
- Includes reasonable strategies for treating non-native invasive species and addressing forest health concerns
- Provides appropriate management and protection for cultural resources
- Reduces risks to life, property and other resources from wildland fire
- Emphasizes the collaboration with local communities and governments, other federal and state agencies to create a shared vision about the cultural and environmental attributes that make this area special
- Responsibly addresses the need for resilient and adaptable ecosystems in the face of climate change
- Adequately responds to comments on the Draft EIS and Proposed Plan.

My conclusion is based on a review of the record that shows a thorough review of relevant scientific information, a consideration of responsible opposing views, and the acknowledgment of incomplete or unavailable information, scientific uncertainty, and risk.

Response to the Issues

Issues, concerns, and opportunities are described in Chapter 1 of the Final Environmental Impact Statement under the heading Purpose and Need. The proposed action was developed to address the issues, concerns, and opportunities identified during the collaborative planning process. Alternatives to the proposed action were developed when unresolved conflicts remained concerning alternative uses of limited resources, or to address issues with significant environmental impacts. The following issues and concerns were identified from the early stages of the planning process that followed publication of the Notice of Intent to revise the plan: (1) Native Ecosystem Restoration; (2) Biodiversity and Species Viability; (3) Forest Health; (4) Vegetation Management for Timber; (5) Fire Management; (6) Old Growth; (7) Watersheds and Water, Soils, Aquatic Resources, Riparian Environments; (8) Access Management; (9) Recreation; (10) Special Area Designations; (11) Land Use and Ownership; (12) Climate Change; (13) Minerals Management; and (14) Economic Benefits.

Native Ecosystem Restoration

Ultimate desired conditions for the ecosystem-based management areas did not vary under the five alternatives, but the rate at which these conditions were achieved and the management actions and resources required were major distinguishing factors. In some locations on the Forests, the distribution of native ecosystems systems is close to what should occur based on landscape characteristics and soil classifications; however, in other settings, major regeneration activities and many decades will be needed to restore desirable native communities. In comparing the alternatives, restoration of native ecosystems will be slowest and restore the fewest acres over the life of the forest plan under alternative A – Custodial Management. Under the alternative A scenario, restoration changes would primarily result from natural succession, which would favor hardwood components over time. Alternatives B and C assume agency funding levels similar to current conditions but with more emphasis and integration of restoration actions under alternative C. Alternative D depicts a faster rate of progress toward desired conditions (more acres restored) by adding regeneration activities. Alternative E further increases restoration progress and forest health by treating more acres of dense forest that need thinning to be more resilient to damage from insects such as southern pine beetle and to survive severe storms. Alternatives D and E are projected to require additional funding opportunities and staffing above current budget levels but would make faster progress toward desired conditions.

Biodiversity and Species Viability

Under Alternative A, community diversity and species viability would likely decline over time. This alternative would promote a tendency towards late succession with locally reduced species richness and minimal management practices to prevent species loss. Red-cockaded woodpecker resource management activities would do the minimum necessary to sustain populations and would be focused only in designated red-cockaded woodpecker habitat management areas. Population expansion potential for gopher tortoise would be reduced compared to other more intensive alternative management themes.

Under alternatives C, D, and E, forest and woodland ecosystems would be managed to restore or maintain native communities that would provide the desired composition, structure and function. Emphasis would be placed on maintaining forest and plant community types not abundant on private lands. Expanded opportunities for additional red-cockaded woodpecker population growth would be provided on suitable areas outside of designated habitat management areas. Expansion of red-cockaded woodpecker habitat management areas would extend across the entire district on the Bienville and Chickasawhay Ranger Districts. Conservation management areas would be developed on the De Soto Ranger District for sandhill crane. Expanded opportunities for conservation and recovery of gopher tortoise populations would be provided by promoting improved habitat conditions on additional suitable habitat areas due to higher levels of vegetation management and prescribed fire application.

Forest Health

A shift in focus from commodity production to native ecosystem restoration and forest health was emphasized. Vegetation management practices support a variety of integrated resource strategies including converting loblolly and slash pine plantings to native ecosystems, creating a diversity of habitats, improving resilience to natural disturbances and a changing climate, reducing impacts of insects and diseases, controlling non-native invasive species, and producing quality timber commodities.

Vegetation Management for Timber

Under the custodial management focus of Alternative A, there would be minimal use of active management practices, natural succession would result in a greater hardwood component, longleaf pine restoration efforts would be limited to habitat management areas on the Bienville, De Soto, and Homochitto National Forests, and occurrence of shortleaf and loblolly pines would be reduced. Average annual timber production would be reduced from current levels and would be a byproduct from red-cockaded woodpecker habitat maintenance and enhancement and salvage and sanitation harvests from wind or southern pine beetle occurrences.

Alternative B is the no-action alternative and would continue current direction and levels of vegetation management. The average annual timber production level in Alternative B lists production levels for recent years under amendments to the 1985 forest plan and reflects reduced output and available management resources from the original forest plan.

Alternatives C, D, and E focus on restoring a variety of native ecosystems and habitats and creating healthier, more sustainable forests. Longleaf pine would be restored within its natural range; hardwood, and pine and hardwood management types would be grown and maintained where ecologically feasible on all districts; hardwood, and pine and hardwood management types would be grown and maintained on appropriate sites, and there would be an emphasis on restoration of shortleaf based on ecological potential and land capability. Forest products are produced as a result of vegetation management practices although they do not drive the process. Alternative C would move toward desired conditions at a realistic pace under current agency funding levels. Alternative D restores more native ecosystem acres through regeneration activities, and Alternative E further improves forest health through thinning. Alternative E would result in achieving desired conditions in the shortest (biologically feasible) timeframe while also ensuring compliance with the multiple-use sustained yield act requirements of non-declining sustained yields. However, alternatives D and E would require additional funding and management resources above current levels.

Fire Management

Alternative A would generate the lowest prescribed burn program and would be limited to threatened and endangered habitat management requirements and response to wildland fire occurrences. Alternatives C, D, and E would focus on burning historically maintained fire ecosystems to preserve natural diversity and would have annual prescribed fire levels slightly greater than under current management (Alternative B). Increased prescribed fire applications under C, D, and E would be necessary to support expanded ecosystem restoration goals and objectives.

Old Growth

Diversity of tree ages, from regeneration to old growth, was emphasized to support a sustainable mix of ecological conditions across the landscape. A strategy to have a distribution of old-growth stands in all ecological systems and all districts, with approximately 10 percent of each forest ecosystem in old-growth conditions was incorporated into alternatives C, D and E.

Watersheds and Water, Soils, Aquatic Resources, Riparian Environments

Productive soils, clean water, and clean air were important desired conditions identified by stakeholders and are essential to sustaining the ecological function and productive capacity of National Forest System lands. Use of best management practices for sustaining and improving watershed areas within national forest control while working cooperatively with other agencies and landowners to improve statewide watershed health were included in all alternatives. Desired outcomes that relate to improving or sustaining a diversity of aquatic species and water-related ecosystems were also emphasized.

Access Management

The main priorities for managing the roads, trails, and facilities that make up the Forests infrastructure are safety and maintenance of existing systems. This includes addressing backlogged repairs and upgrades, improvements for environmental protection, disposal of facilities that are no longer needed, and rehabilitation of user-created trails and roads. For the remainder, there will be an emphasis on improving the maintenance of existing roads and trails, with a particular focus on improvements to important public safety and ecological features, such as bridges and stream culverts. The emphasis for the trails system is on sustaining a forestwide network of trails for a variety of uses across the state and bringing existing designated trails up to improved conditions. Partnerships with other agencies, communities, and special interest groups are identified as key to offering additional seasonal access to wildlife management areas and expanding or adding new trails.

Recreation

Forest management strategies for recreation considered an appropriate mix of sustainable recreation opportunities that would balance increasing and changing demands with concerns for public health and safety and ecosystem protection. For the National Forests in Mississippi, anticipated budget and staffing levels required the focus to be on maintaining current infrastructure and recreation opportunities rather than expanding and adding new facilities. This approach did not vary significantly by alternative, but there were slight differences between Alternative A, which would emphasize low impact recreation opportunities and minimal management, and alternatives C, D, and E, which would include the addition of a Backcountry special emphasis area on the Tombigbee National Forest.

Special Area Designations

Under alternatives A and B, current special areas would be retained but no additional designations would be planned. Alternatives C, D, and E would add sixteen new

botanical areas and establish two new research natural areas. Management actions under alternatives C, D, and E would also include expansion of current red-cockaded woodpecker habitat management areas. Under alternatives A and B, new mineral leases in the Sandy Creek RARE II Further Study Area/Inventoried Roadless Area (IRA) would not be authorized. Under alternatives C, D, and E the Sandy Creek RARE II Further Study Area/IRA would become available for new oil and gas leasing with a No Surface Occupancy stipulation on the 300-acre Sandy Creek Botanical Area and a stipulation that prohibits road construction or reconstruction for newly leased areas within the Sandy Creek inventoried roadless area.

Land Use and Ownership

The population of Mississippi was approximately 2.5 million in the 1980s. Currently, the State population is over 2.9 million, with over 3 million residents projected by 2030. With an increasing population, development of private lands adjacent to the Forests has increased dramatically since 1985. This is particularly true for the De Soto National Forest close to the Gulf Coast and portions of the Holly Springs National Forest close to Memphis, Tennessee. The wildland-urban interface was not an issue in 1985 but is a growing factor in management decisions today. Also, land acquisition priorities in the 1985 forest plan were on consolidating ownership to meet the timber demands more efficiently and provide access for removal of market goods. Land acquisition priorities today still focus on consolidating ownership, but the intent is to reduce fragmentation of forest communities, provide protected habitat for wildlife, protect heritage sites, and preserve desirable ecological communities. Today's land ownership focus also includes lands that may not be contiguous but would preserve and enhance high-value habitats, rare species, or critical watersheds.

Climate Change

An increase in extreme weather events is the climate change factor most likely to affect the Forests in the next 10-15 years. In response to potential effects from climate change, strategies in the alternatives include reducing vulnerability by maintaining and restoring resilient native ecosystems, enhancing adaptation by reducing impacts from serious disturbances and taking advantage of disruptions, using preventative measures to reduce opportunities for forest pests, and mitigating greenhouse emissions by reducing carbon loss from hurricanes.

Minerals Management

In August 2010, the National Forests in Mississippi renewed its decision for Lands Available for Oil and Gas Leasing (National Forests in Mississippi - Lands Available for Oil and Gas Leasing Environmental Assessment, August 2010). The 2010 oil and gas leasing decision authorized all lands on the National Forests in Mississippi to be available for Federal oil and gas leasing through the Bureau of Land Management (BLM), except for congressionally designated wilderness areas (Black Creek and Leaf) and it deferred making a decision on the Sandy Creek RARE II Further Study Area. These lands, approximately 1.2 million acres, would be administratively available subject to 1) management direction in the National Forests in Mississippi Forest Plan, 2) oil and gas lease stipulations, 3) the wide range of laws and regulations that require environmental

protections for oil and gas exploration and development and 4) site-specific environmental analysis as detailed exploration proposals are made by lease holders. Additionally, all administratively available lands will be available for lease by the BLM, subject to the standard USDA stipulations, and the environmental requirements of the standard federal lease terms detailed in Appendix B of the National Forests in Mississippi Lands Available for Oil and Gas Leasing Environmental Assessment, August 2010.

A decision regarding oil and gas leasing availability on the Sandy Creek RARE II Further Study Area/IRA was evaluated and addressed in this Final EIS for the Revised Forest Plan. Alternatives A and B would not authorize new oil and gas leasing in the 2,558 acre Sandy Creek Further Study Area/IRA. However, alternatives C, D, and E would permit new oil and gas leasing in the Sandy Creek Further Study Area/IRA subject to the 2001 Roadless Area Conservation Rule restrictions. These restrictions include no new road construction or reconstruction permitted in the inventoried roadless area; therefore only existing system roads would be utilized as access for lease activities. (It should be noted that part of this area, approximately140 acres, is currently under lease.)

Economic Benefits

The national forest activities that generate the majority of the revenues that feed back into the local economy in Mississippi come from timber, minerals, and recreation. As a result of restoring native ecosystems to appropriate sites and maintaining healthy and resilient forests, there should be a steady flow of economic benefits back to local communities.

Management Concerns

In addition to the planning issues and public comments, the following factors were considered in making my decision:

- Consistency with applicable laws, policies, manual, and handbook direction that govern the development of a Forest Plan and management of national forest lands.
- Promotion of rural economic development and a quality rural environment.
- The effects on the people who use and depend on forest resources.
- Consistency with plans and policies of local, State, and other national government agencies.
- Operational and budget needs to fully implement the Plan decision.

Net Public Benefits

The 1982 National Forest Management Act (NFMA) implementing regulations (36 CFR 219.1) state that forest plans must "...provide for multiple-use and sustained yield of goods and services from the National Forest System in a way that maximizes long-term net public benefits in an environmentally sound manner." Net public benefits are defined as the overall long-term value to the Nation of all outputs and positive effects (benefits), less all associated inputs and negative effects (costs), whether they can be quantitatively valued or not. Net public benefits are measured by both quantitative and qualitative criteria rather than by a single measure or index. The maximization of net public benefits is consistent with the principles of multiple use and sustained yield (36 CFR 219.3).

Net public benefits have two components – priced and non-priced benefits and costs. Prices for outputs and uses were estimated in the FEIS for each alternative and displayed in Chapter 4 of the FEIS and in FEIS, Appendix B. The Present Net Value (PNV) was used to measure the economic efficiency of each alternative and Alternative C provides the highest PNV among the alternatives. Most of the benefit value is derived from recreational uses, primarily hunting and fishing. Timber is a negative contributor to present net value at the program levels of Alternative A and B, but becomes positive at the program levels of Alternatives C through E.

Alternative C has a higher calculated PNV than Alternatives D and E because the present value costs by program for range, minerals, recreation and wildlife were assumed to increase for Alternatives D and E because of the increased level of management activity occurring under these alternatives. However, there were no anticipated increases in present value benefits for those corresponding program areas. In conducting a sensitivity test, even if the budgets for range, minerals, recreation and wildlife were held constant with those estimated for Alternative C, the PNVs for Alternatives D and E would slightly increase, but they would still not be higher than Alternative C. This indicates that the other program costs associated with the increased level of management activities in Alternatives D and E also exceed the additional revenues that would be gained from those higher activity levels. With respect to the non-priced benefits and costs, Alternatives C, D, and E incorporate an integrated resource management approach that restores native ecosystems, restores habitats for threatened and endangered species, reduces the threat from wildland fire, and conserves special interest areas for future generation to enjoy.

I believe that Alternative C provides direction to manage the national forest to produce goods, services, and use opportunities in a way that maximizes net public benefits. I believe Alternative C, the Selected Alternative, achieves a balance between the economic benefits and environmental issues and concerns voiced by the public. I believe the Selected Alternative will increase public benefits by moving the NFs in MS towards improved forest health through its emphasis on restoring native ecosystems and through its special attention to unique plant and animal habitats. I believe the Selected Alternative will contribute to the local economies through outputs of forest products and outstanding recreation opportunities. I am also confident that the management direction in the Revised Forest Plan is within the physical and biological capability of the land and can be accomplished without reducing that capability.

Environmentally Preferable Alternative

The Council on Environmental Quality has defined the "environmentally preferable" alternative as: "...the alternative that will promote the national environmental policy as expressed in NEPA's section 101. Ordinarily, this means the alternative that causes the least damage to the biological and physical environment; it also means the alternative which best protects, preserves, and enhances historic, cultural, and natural resources."

Alternative C, D and E incorporate management strategies that restore native ecosystems through implementation of integrated management activities to effectively accomplish natural resource management objectives while incorporating best science and best management practices. These three action alternatives adopt a common vision, collaboratively developed, that improves community diversity and species viability. All

three action alternatives incorporate fire management practices to promote and preserve natural diversity in fire-dependent ecosystems. They each promote conservation and recovery of threatened and endangered species. They also implement a common old-growth management strategy designed to achieve a balanced mix of small, and medium-sized old-growth forest community types.

Alternative C, D, and E all promote improved forest health conditions; with restoration of native ecosystems, improvement in community diversity and species diversity, and restoration of historic fire regimes in fire-dependent ecosystems. All three action alternatives protect, preserve, and enhance historic, cultural and natural resources. They all promote positive environmentally preferred attributes. However, Alternative E makes progress towards and achieves ecological and forest health desired conditions across the landscape at a more positive and sustained pace that the other action alternatives. Therefore, Alternative E with its emphasis on promoting and enhancing healthy forest conditions in an environmentally sound basis makes it the environmentally preferred alternative.

Science Consistency

The ecological sustainability framework used to support forest plan revision for the National Forests in Mississippi is built on a foundation of ecological system diversity. By restoring and maintaining the key characteristics, conditions, and functionality of native ecological systems, the National Forests in Mississippi should be able to not only improve ecological system diversity but also provide for the needs of diverse plant and animal species on the forest.

Much of the information used in establishment of our ecological sustainability framework was derived from data compiled by NatureServe under a participating agreement with the Forest Service. Our partnership with NatureServe was sought as a means to ensure that the best available information on species status and habitat relationships was used. Under this agreement, NatureServe staff engaged numerous species experts and state heritage programs to develop a relational database that includes relevant information on species' status, habitat relationships, and threats to viability.

Experts knowledgeable about ecological conditions and species in Mississippi participated in identifying key characteristics and performance measures. Experts reviewed lists and definitions of ecological systems and suggested important ecological characteristics and performance measures. Final determinations of ecological sustainability components were based on consideration of expert input, subsequent additional information from a variety of sources, and needs of associated species.

This provided the basis for development of an ecological sustainability evaluation database and evaluation tool from which the overall framework for many of the forest plan components and the systems-based direction in the revised forest plan was derived. The ecological sustainability evaluation database and evaluation tool will also be an important source of data and guidance for sustaining native ecological systems and species when implementing the revised forest plan.

The National Forests in Mississippi provides habitat for ten federally listed threatened and endangered species. The plan revision process facilitated a comprehensive review of

the long-term resource management activities on National Forest System lands. The revision process updated and clarified desired resource conditions, resource management practices, levels of resource production and management, and the availability of suitable land for resource management, and monitoring and evaluation requirements for effective implementation.

As a result, threatened and endangered species habitat conditions and their respective conservation measures were reviewed and incorporated. The revised plan incorporates the most recent threatened and endangered species recovery plan conservation measures for species known to occur on National Forests in Mississippi administered lands. The revised plan establishes habitat management areas for red-cockaded woodpeckers and cooperative management units for the dusky gopher frog and the Mississippi sandhill crane. The establishment of cooperative management units creates a focus point for management needs to ensure the latest most relevant conservation measures are implemented and that the spatial extent of their respective range supports population expansion.

Creating appropriate fire regimes for native ecological communities is recognized as a necessary part of the desired conditions and objectives for ecosystem diversity. The revised plan fire management strategy reflects an increasing knowledge of the critical role of fire in restoring habitats for fire-dependent species such as red-cockaded woodpecker and gopher tortoise, and maintaining desirable stands of longleaf and shortleaf pines and rare communities such as prairies and pitcher plant bogs. Management of wildfires and prescribed burns can serve to restore and maintain native ecosystems while also protecting national forest and adjacent lands from the negative effects of fire. The revised plan fire management direction is consistent with and implements the policies and science-based strategies of the National Cohesive Wildland Fire Management Strategy and its companion National Action Plan developed and adopted by the National Fire Leadership Council.

The National Forests in Mississippi recognize climate change may affect the future biodiversity and function of forest ecosystems. In developing management strategies to deal with a changing climate, forests can play an important role in both mitigating and adapting to climate change. However, there are uncertainties about the direction of change, especially at the local level, on how natural ecosystems will respond to future natural and human-induced pressures.

The National Forests in Mississippi identified a key area of climate change most likely to be a concern to the Forest in the next 10 – 15 years and that was an increase in extreme weather events and other natural disasters. Recent studies following Hurricane Katrina indicate that longleaf is less damaged from storms than loblolly, appears to have less insect and pathogen problems, and has greater fire resistance. Restoration of longleaf pine on appropriate sites serve multiple useful strategies for achieving desired ecosystem and species diversity conditions, enhancing resilience to climate change, and mitigating carbon loss.

Based on native site conditions, longleaf pine would be expected to have higher resilience to a changing climate that is warmer, dryer, and likely to have higher fire hazards. Recent research indicates that longleaf pines appear to outgrow other pine species beyond

25 years, may capture more carbon below ground, and may have a higher wood specific gravity – all of which potentially increase carbon sequestration. Restoration of other native ecosystems such as shortleaf pines, oaks, bogs, savannas, and prairies would also move the forest toward desired conditions while enhancing resilience.

These and other scientific information were also used:

- To inform the collaborative planning group of the need to change various other management approaches such as the need to increase prescribed burning and to treat non-native invasive species. This in turn served to inform the development of plan components to address these needs.
- As source material for descriptions of the affected environment and environmental consequences evaluations in all relevant sections of the Environmental Impact Statement (EIS); and to inform the Terrestrial Species Viability Evaluation, the Aquatic Species Viability Evaluation, and the Biological Assessment.

One of the basic tenets of the revised Plan is that managing for a diversity of healthy native ecosystems is integral to providing appropriate ecological conditions for a diversity of plant and animal species. As was mentioned previously, there were a series of collaborative meetings with technical experts and taxonomic specialists familiar with the plant and animal species across Mississippi. These experts reviewed the definitions of ecological systems and suggested important ecological characteristics and performance measures, which lead to the development of the Plan's desired conditions. A list of all potential species that could occur on the NFs in MS and their habitat needs were also developed and analyzed.

Management direction for addressing the restoration of longleaf pine was coordinated with the Southern Research Station, and the Southern Research Station was also instrumental in the analysis of climate change effects to the NFs in MS, and in the development of responses to those impacts.

Findings Related to Other Laws and Authorities

I have considered the statutes governing management of the National Forests in Mississippi, and I believe that this decision represents the best possible approach to both harmonizing and reconciling the current statutory duties of the USDA Forest Service. Following are summaries of how the Revised Forest Plan addresses the Clean Air Act, Clean Water Act, National Historic Preservation Act, and Endangered Species Act.

Clean Air Act

As discussed in the FEIS, Chapter 3 and Chapter 4, Air Resources section, all lands managed by the National Forests in Mississippi are currently in attainment with National Ambient Air Quality Standards. According to the Clean Air Act of 1990 and the Organic Administration Act of 1897, the USDA Forest Service has the responsibility to protect the air, land, and water resources from the impacts of air pollutants produced within the national forest boundaries and to work with states to protect those same resources from degradation associated with the impacts of air pollution emitted outside of the national forest.

Prescribed burning is the activity most likely to contribute air emissions. Smoke emissions from prescribed fires are managed through best available smoke management practices. These practices are conducted in accordance with the Clean Air Act, the State Implementation Plan, and the Southern Smoke Management Guidebook. Since air issues are often regional in nature, the Forest Service also works cooperatively with State and Federal air management agencies and regional haze reduction organizations to improve air quality for the region.

Clean Water Act

The Revised Forest Plan contains direction to ensure all projects meet or exceed State Best Management Practices prepared under guidance of the Clean Water Act. Direction for the protection of water resources is located in the Standards and Guidelines section of the Revised Forest Plan. Implementation of the Revised Forest Plan is expected to contribute to protecting or restoring the physical, chemical, and biological integrity of waters of the United States in accordance with the Clean Water Act.

National Historic Preservation Laws

The Revised Forest Plan is a programmatic action and does not authorize any site-specific projects. The Plan does designate Special Areas which include areas that will be managed with an emphasis on historic and cultural preservation and protection. Projects undertaken in response to direction in the Forest Plan will fully comply with the Plan Standards and Guidelines as well as the laws and regulations that require consideration of cultural resources. The Forest Plan contains direction for cultural resource management, including direction to integrate cultural resource management with other resource management activities.

The Mississippi State Historic Preservation Office (SHPO) was consulted during the development of this plan. The Forest Plan tiers to the Programmatic Agreement among the USDA Forest Service, the Mississippi State Historic Preservation Officer, and the Advisory Council on Historic Preservation regarding the process for compliance with Section 106 of the National Historic Preservation Act. It is my determination that the Revised Forest Plan complies with the National Historic Preservation Act, the Archaeological Resources Protection Act and other statutes that pertain to the protection of cultural resources.

Endangered Species Act Section 7: Consultation

A Biological Assessment (BA) was prepared for the Revised Forest Plan and submitted to the USDI Fish and Wildlife Service Jackson Field Office requesting formal consultation under section 7 of the Endangered Species Act (ESA). Subsequently, the USDI Fish and Wildlife Service (USFWS) issued a programmatic Biological Opinion (BO) that outlines the consultation approach that will be followed during plan implementation. The Biological Opinion, issued on April 14, 2014, concurred with the findings of *"may affect, not likely to adversely affect"* for the Louisiana black bear, Mississippi sandhill crane, Red-cockaded woodpecker, Gulf sturgeon, Pallid sturgeon, Gopher tortoise, Louisiana quillwort and Pondberry.

With respect to the Indiana bat and Dusky gopher frog, the Biological Assessment determined that the Revised Plan *"may affect, likely to adversely affect"* the Indiana bat

and Dusky gopher frog. In the BO, the USFWS anticipates the incidental take of the Indiana bat and the Dusky gopher frog as a result of implementing the Revised Plan, and identifies reasonable and prudent measures necessary and appropriate to minimize the take of the Indiana bat and the Dusky gopher frog. The BO then concludes that this level of expected take is not likely to result in jeopardy to the Indiana bat or destroy or adversely modify its critical habitat. Similarly, the BO also concluded that the actions conducted under the Revised Plan will support the survival and recovery of the Dusky gopher frog and are not likely to result in jeopardy to the species or destruction or adversely modification of its critical habitat.

In order to be exempt from the prohibitions of Section 9 of the ESA, the Forest Service must comply with the terms and conditions of the incidental take statements in the Biological Opinion, which implement the reasonable and prudent measures. These terms and conditions are non-discretionary. A copy of the Biological Opinion's Incidental Take Statement (with its accompanying terms and conditions) is included in Appendix G of the Revised Forest Plan.

Compatibility with Goals of Other Public Agencies and Indian Tribes

The Revised Forest Plan has been developed with public participation that involved coordination and comments from Federal, State, and local agencies including the USDI Bureau of Land Management; USDI Fish and Wildlife Service; Mississippi Department of Wildlife, Fisheries and Parks; the Mississippi Forestry Commission; and local community leaders. Contact with the Chickasaw Nation and the Choctaw Nation of Oklahoma clarified that their interests are largely addressed through project-level analysis as the plan is implemented in the years to come.

Environmental Justice

Executive Order 12898 (59 Federal Register 7629, 1994) directs federal agencies to identify and address, as appropriate, any disproportionately high and adverse human health or environmental effects on minority populations and low-income populations in the local communities. I have determined, from the analysis disclosed in the FEIS, that the Revised Forest Plan is in compliance with Executive Order 12898 and that there are no disproportionate environmental or health effects to minority or low-income populations anticipated from implementing the selected alternative.

Effective Date and Plan Implementation

The Revised Forest Plan will become effective 30 days from the date that the Environmental Protection Agency's Notice of Availability of the Final Environmental Impact Statement appears in the *Federal Register*.

Forest Plans are permissive in that they allow, but do not mandate, the occurrence of certain activities. The Revised Forest Plan will be implemented through a series of project-level decisions based on site-specific environmental analysis and public involvement. The Revised Forest Plan seeks to guide management activities and projects by establishing a clear desired condition for the National Forests in Mississippi and for each management area, rather than by establishing schedules for actions. This approach leaves more flexibility for managers to adapt program and project selection as changes take place in budgets, resource capabilities, and management priorities.

Outputs in the FEIS are projections of probable outcomes. They were used to approximate activities and practices, in order to estimate the likely environmental effects of following the direction provided by the Revised Forest Plan.

During implementation, specific projects and activities will be proposed and analyzed. These analyses will be documented in the appropriate NEPA documents, i.e., Environmental Assessments, Environmental Impact Statements, or Categorical Exclusions. Projects, practices, and activities will be designed to achieve the desired conditions, objectives, and applicable standards and guidelines as described in the Revised Forest Plan.

Transition to the Revised Forest Plan

Revised Forest Plan direction will apply to all projects that have decisions made on or after the implementation date of this Record of Decision.

The National Forest Management Act (NFMA) requires that "permits, contracts, and other instruments for the use and occupancy" of National Forest System lands be "consistent" with the current Land and Resource Management Plan [16 U.S.C. 1604(i)]. In the context of a Revised Forest Plan, NFMA specifically qualifies this requirement in three ways: 1) these documents must be revised only "when necessary", 2) these documents must be revised "as soon as practicable", and 3) any revisions are "subject to valid existing rights."

There are many management actions that have decisions made before the effective date of this ROD. These "pre-existing actions" were considered part of the baseline in developing each alternative and the Revised Forest Plan. The projected effects of these actions are part of the cumulative effects analyses documented in the FEIS and Biological Assessment. Additional review concluded that the continued implementation of these previously decided actions would still be consistent with the desired conditions, objectives and management requirements of this Revised Forest Plan.

I have not identified any need to modify any agency actions involving permits, contracts, or other instruments for the use and occupancy of National Forest System lands due to conflicts with the Revised Forest Plan. These actions will be implemented according to

the terms of the applicable instrument. However, should the need arise, the Forest Supervisor has the discretion to modify these permits, contracts, or other instruments for the use and occupancy of National Forest System lands.

After approval of the Revised Plan, the Forest Supervisor shall ensure that future permits, contracts, and other instruments for the use and occupancy of the affected National Forest System lands will be consistent with the Revised Plan.

Monitoring and Evaluation

Monitoring and evaluation is used to assess the degree to which on-the-ground management is maintaining or making progress toward the goals, desired conditions, and objectives in the plan. The monitoring program is described in Chapter 5, "Monitoring and Evaluation", of the Revised Forest Plan. This monitoring program was developed with public participation and focuses on key plan components where management projects and activities are likely to cause a change over time.

Specific monitoring questions are identified and directly linked to Revised Forest Plan desired conditions, objectives, standards, and specific regulatory requirements. Only selected desired conditions, objectives, and standards are monitored. Relevancy to issues, compliance with legal and agency policy, scientific credibility, administrative feasibility, long- and short-term budget considerations, and impact on work force all influence monitoring priorities.

Monitoring information will be evaluated and used to update inventory data, improve current and future mitigation measures, and assess the need to change the Revised Forest Plan. Evaluation of monitoring results is directly linked to the decision maker's ability to respond to changing conditions, emerging trends, public concerns, and new information and technology. No single monitoring item or parameter automatically triggers a change in Revised Forest Plan direction. An interdisciplinary approach is used to evaluate information and decide what changes are needed.

Plan Amendments

The Revised Forest Plan is a dynamic instrument that can be changed with appropriate public involvement and environmental analysis. Through the life of the Revised Forest Plan, amendments may be needed to incorporate new information, new policy and direction, or changing values and resource conditions. Amendments will keep the Revised Forest Plan current, relevant, and responsive to agency and public concerns. Amendments are needed whenever any of the Revised Forest Plan decisions should be changed due to any of the above conditions. The Revised Forest Plan also can be amended for specific projects if during project design it is determined that the best method of meeting goals and objectives conflicts with existing plan direction. There will be opportunities for the public to be involved in any future changes to the Revised Forest Plan.

Appeal Information

This decision is subject to administrative review. According to 36 CFR 219.17(b)(3), if the responsible official chooses to complete an ongoing planning process under the provisions of the prior planning regulation, the responsible official can choose to allow for either an administrative appeal or can follow the objection process identified in 36 CFR Subpart B. For this decision, I have decided to use the administrative appeal process. Under the prior planning regulations at Appendix A to 36 CFR 219.35 (see 36 CFR part 219, published at 36 CFR parts 200 to 299, revised as of July 1, 2010), when the option is made to proceed under the 1982 regulations and to follow the administrative appeal process, the "Optional Appeal Procedures Available during the Planning Rule Transition Period" (the former 36 CFR 217 appeal procedures that were in effect prior to November 9, 2000) are to be used.

A written notice of appeal must be filed in duplicate and postmarked or received within 90 days after the date the legal notice of this decision is published in the newspaper of record (*Clarion-Ledger, published daily in Jackson, MS*). The appeal must clearly state that it is a Notice of Appeal being filed pursuant to the Optional Appeal Procedures. Appeals must meet the content requirements of Section 9 of the Optional Appeal Procedures, which are available for review at:
http://www.fs.fed.us/emc/applit/includes/PlanAppealProceduresDuringTransition.pdf

Appeals must be filed with the Chief of the Forest Service at:

Address for UPS and Federal Express deliveries:

USDA - Forest Service
Attn: Administrative Reviews (EMC/2nd Floor Central)
201 14th Street, SW
Washington, DC 20250

(Note: If a phone number is needed for carrier delivery, use 202-205-1449)

Regular Mail:

USDA - Forest Service
Attn: Administrative Reviews
1400 Independence Avenue, SW
Mail Stop #1104
Washington, DC 20250

Appeals may also be faxed (Fax number is 202-649-1172) or appeals may be mailed electronically in a common digital format to:

appeals-chief@fs.fed.us

Requests to stay the approval of this Revised Forest Plan shall not be granted (Section 10 of the Optional Appeal Procedures).

Final decisions on proposed projects implementing the Revised Forest Plan will be made on a site-specific basis using appropriate analysis and documentation in compliance with NEPA. Project decisions may be subject to an objection process at that time.

Contact Information

For additional information concerning this decision or the Forest Service appeal process, contact:

Forest Supervisor
National Forests in Mississippi
200 South Lamar St., Suite 500-N
Jackson, MS 39201
601-965-1600

Approval

I am pleased to announce my decision to select Alternative C for the Revised Land and Resource Management Plan (Forest Plan) for the National Forests in Mississippi. This Revised Forest Plan has been built on a strong foundation of science along with collaboration and engagement with members of the public, conservation agencies and organizations.

LIZ AGPAOA
Regional Forester
Southern Region, USDA Forest Service

July 3, 2014
Date